

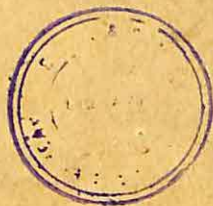
Review of Educational Research

VOL. XIX, NO. 1

FEBRUARY 1949

478 2¹⁶

THE SOCIAL FRAMEWORK OF EDUCATION



AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

A Department of the

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

1201 Sixteenth St., N.W., Washington 6, D. C.

478
257

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

THIS ASSOCIATION is composed of persons engaged in technical research in education, including directors of research in school systems, instructors in educational institutions, and research workers connected with private educational agencies.

Officers, February 1948—February 1949

President: WILLARD C. OLSON, Director of Research in Child Development in the University Elementary School, and Professor of Education, School of Education, University of Michigan, Ann Arbor, Michigan.

Vicepresident: HELEN M. WALKER, Professor of Education, Teachers College, Columbia University, New York 27, New York.

Secretary-Treasurer: FRANK W. HUBBARD, Director, Research Division, National Education Association, Washington 6, D. C.

Executive Committee

Consists of five members: The president, vicepresident, secretary-treasurer, chairman of the Editorial Board, and the following immediate past president: DOUGLAS E. SCATES, Director of Research in Scientific Personnel, Office of Naval Research Projects, American Council on Education, Washington, D. C.

Editorial Board

Chairman and Editor:* HARRY A. GREENE, Professor of Education, State University of Iowa, Iowa City, Iowa.

ARNOLD E. JOYAL, President, Fresno State College, Fresno 4, California.

JOHN DALE RUSSELL, Director, Division of Higher Education, U. S. Office of Education, Washington 25, D. C.

The president; and the secretary-treasurer.

***Assistant Editor:** ALBERT N. HIERONYMUS, State University of Iowa, Iowa City, Iowa.

Applications for membership should be sent to the secretary-treasurer. Upon approval by the Executive Committee persons applying will be invited to become members.

Subscriptions to the REVIEW should be sent to the secretary-treasurer (note address above).

Orders for one or more publications, accompanied by funds in payment, should be sent to the American Educational Research Association, 1201 Sixteenth St., N. W., Washington 6, D. C. For a list of titles see the back inside cover page.

Active members of the Association pay dues of \$7 annually. Associate members pay \$6 annually. Of this amount \$5 is for subscription to the REVIEW. The REVIEW is published in February, April, June, October, and December. Beginning with the February 1949 issue single copies are priced at \$1.50.

Entered as second-class matter April 10, 1931, at the post office at Washington, D. C., under the Act of August 24, 1912.

13-8-70

8 179

REVIEW OF EDUCATIONAL RESEARCH

*Official Publication of the American Educational Research Association.
Contents are listed in the Education Index.*

Copyright, 1949

By National Education Association of the United States, Washington, D. C.

Vol. XIX, No. 1

February 1949

The Social Framework of Education

Reviews the literature for the three-year period ending December 1948.
Earlier literature was reviewed in Volume VII, No. 1; Volume X, No. 1;
Volume XIII, No. 1; and Volume XVI, No. 1, February 1946.

TABLE OF CONTENTS

Chapter	Page
Introduction	4
NEWTON EDWARDS, <i>University of Chicago, Chicago, Illinois, and University of Texas, Austin, Texas</i>	
I. The Re-examination of Democratic Ideals and Institutions.....	5
GEORGE E. AXTELL, <i>New York University, New York, New York</i>	
II. Democratic Behavior and the Educative Process.....	21
GEORGE W. HARTMANN, <i>Teachers College, Columbia University, New York, New York</i>	
III. Economic and Cultural Differentials in American Life.....	32
EUGENE S. LAWLER, <i>Northwestern University, Evanston, Illinois</i> FRANCES L. LAWLER, <i>Evanston, Illinois</i>	
IV. Education and the Changing Pattern of Economic Life.....	42
HAROLD H. PUNKE, <i>United States Office of Education, Washington, D. C.</i>	
V. Education and International Order.....	57
WILLIAM G. CARR, <i>National Education Association, Washington, D. C.</i> WILBUR F. MURRA, <i>National Education Association, Washington, D. C.</i>	
VI. Reshaping Educational Policy.....	77
HERMANN H. REMMERS, <i>Purdue University, Lafayette, Indiana</i> NATHANIEL L. GAGE, <i>Purdue University, Lafayette, Indiana</i>	

REVIEW OF EDUCATIONAL RESEARCH

*Official Publication of the American Educational Research Association.
Contents are listed in the Education Index.*

Copyright, 1949

By National Education Association of the United States, Washington, D. C.

Vol. XIX, No. 2

April 1949

Language Arts and Fine Arts

Reviews the literature for the three-year period since the issuance of
Volume XVI, No. 2, April 1946.

TABLE OF CONTENTS

Chapter	Page
Foreword	94
HARRY A. GREENE, <i>State University of Iowa, Iowa City, Iowa</i>	
I. Research in Reading, 1946-1948	95
DONALD D. DURRELL, <i>Dean and Professor of Education, Boston University, Boston, Massachusetts</i>	
HELEN A. MURPHY, <i>Associate Professor of Education, Boston University, Boston, Massachusetts</i>	
II. Visual and Related Factors in Reading	107
THOMAS H. EAMES, <i>Lecturer in Education, Boston University, Boston, Massachusetts</i>	
III. Research in Spelling and Handwriting	118
RUSSELL G. STAUFFER, <i>Assistant Director of the Reading Clinic, Temple University, Philadelphia, Pennsylvania</i>	
IV. Research in the Teaching of Literature	125
DWIGHT L. BURTON, <i>University High School, University of Minnesota, Minneapolis, Minnesota</i>	
V. Research in English Composition	135
CLIFFORD P. ARCHER, <i>Professor of Education, University of Minnesota, Minneapolis, Minnesota</i>	
VI. Research in Speech Education	152
HOWARD GILKINSON, <i>Professor of Speech, University of Minnesota, Minneapolis, Minnesota</i>	
VII. Research in Art Education	158
EDWIN ZIEGFELD, <i>Head of the Department of Fine and Industrial Arts, Teachers College, Columbia University, New York</i>	
Index	172

REVIEW OF EDUCATIONAL RESEARCH

*Official Publication of the American Educational Research Association.
Contents are listed in the Education Index.*

Copyright, 1949

By National Education Association of the United States, Washington, D. C.

Vol. XIX, No. 5

December 1949

Mental and Physical Health

Reviews the literature for the three-year period since the issuance of
Volume XVI, No. 5, December 1946.

TABLE OF CONTENTS

Chapter	Page
Foreword.....	369
I. Relationships Between Physical and Mental Health.....	371
REYNOLD A. JENSEN, M.D., <i>University of Minnesota, Minneapolis</i>	
II. Experimental Contributions to Mental Hygiene.....	379
LAURANCE F. SHAFFER, <i>Teachers College, Columbia University, New York</i>	
III. Technics and Instruments for the Improvement of Mental Health.....	386
RUTH STRANG, <i>Teachers College, Columbia University, New York</i>	
IV. Mental Health in Community Life.....	395
RALPH H. OJEMANN, <i>State University of Iowa, Iowa City</i>	
V. Mental Health in Schools and Colleges.....	405
HOWARD Y. MCCLUSKY, <i>University of Michigan, Ann Arbor</i>	
VI. Mental and Physical Health and Safety in Industry.....	413
LYDIA G. GIBERSON, M.D., <i>Metropolitan Life Insurance Company, New York</i>	
VII. School Health Services.....	418
GEORGE M. WHEATLEY, M.D., <i>Metropolitan Life Insurance Company, New York</i>	
THOMAS E. SHAFFER, M.D., <i>Ohio State University, Columbus</i>	
VIII. Health Education.....	427
MABEL E. RUGEN, <i>University of Michigan, Ann Arbor</i>	
List of Members.....	436
Index.....	457

This issue of the REVIEW was prepared by the
Committee on Mental and Physical Health.

MABEL E. RUGEN, *Chairman*, University of Michigan, Ann Arbor
RALPH H. OJEMANN, State University of Iowa, Iowa City
LAURANCE F. SHAFFER, Teachers College, Columbia University, New York
RUTH STRANG, Teachers College, Columbia University, New York
GEORGE M. WHEATLEY, M.D., Metropolitan Life Insurance Company,
New York

with the assistance of

LYDIA G. GIBERSON, M.D., Metropolitan Life Insurance Company, New York
REYNOLD A. JENSEN, M.D., University of Minnesota, Minneapolis
HOWARD Y. MCCLUSKY, University of Michigan, Ann Arbor
THOMAS E. SHAFFER, M.D., Ohio State University, Columbus

This issue of the REVIEW was prepared by the Committee on the Social Framework of Education

NEWTON EDWARDS, *Chairman*, University of Chicago, Chicago, Illinois,
and University of Texas, Austin, Texas

GEORGE E. AXTELLE, New York University, New York, New York

WILLIAM G. CARR, National Education Association, Washington, D. C.

GEORGE W. HARTMANN, Teachers College, Columbia University, New York,
New York

EUGENE S. LAWLER, Northwestern University, Evanston, Illinois

HAROLD H. PUNKE, United States Office of Education, Washington, D. C.

HERMANN H. REMMERS, Purdue University, Lafayette, Indiana

with the assistance of

NATHANIEL L. GAGE, Purdue University, Lafayette, Indiana

FRANCES L. LAWLER, Evanston, Illinois

WILBUR F. MURRA, National Education Association, Washington, D. C.

INTRODUCTION

EDUCATION is never an autonomous process, divorced from the society it serves. It finds its central purpose, its guiding principles, and its ultimate goals in the particular social order in which it develops and functions. However, an educational system, as an authentic expression of a civilization, does not develop spontaneously; it represents, rather, deliberate planning, the acceptance or rejection of alternatives. Always at the point where educational policies are formulated and programs developed, choices have to be made among varied possibilities. Thus the choices made, representing as they do a positive affirmation of social policy and opening up avenues for the achievement of individual and social purpose, affect profoundly the destiny of a people and the quality of the civilization they achieve. Obviously, some choices are more authentic expressions of the heritage of a people than others, and some more than others make education serve a dynamic function in the future development of society. But all choices between policy alternatives should be made in terms of an adequate understanding of the social framework within which the educational enterprise is operating and is likely to operate. Such is the case at all times but especially so today because of the significant changes taking place in our culture and the closer relationships we as a people must maintain with other peoples in a rapidly shrinking world. It was these considerations that dictated the choice of topics selected by the committee for treatment in this issue of the REVIEW.

Attention should be called to the pattern of organization that has been followed. The first chapter is devoted to a review of the literature which reappraises the value premises lying at the base of our democratic society and re-examines the functioning of the social institutions which are the carriers of these value premises. The second chapter moves more specifically into a consideration of the interrelations of democracy and education. The third and fourth chapters deal with still more specific aspects of the social framework within which education must function, namely, the economic and cultural differences in American life and the changing patterns of our economic life. The fifth chapter moves out into the broader area of the relation of education to the international order. The final chapter appraises our efforts in reshaping our educational policy.

Altho members of the committee are fully aware that this REVIEW does not give complete coverage of the topics selected for treatment, they hope and believe that the materials presented will help the professional educator to get a clearer understanding of the relations between education and the society it seeks to serve.

The committee wishes to express its appreciation of the services of all those who assisted its various members in the preparation of their respective chapters.

NEWTON EDWARDS, *Chairman*
Committee on Social Framework of Education

CHAPTER I

The Re-examination of Democratic Ideals and Institutions

GEORGE E. AXTELLE

478216

THE publications relating to this topic are so numerous that it has been necessary to exercise considerable judgment in selecting the references for review. The limitations of space have required the rejection of many items that might very well have been included. Without doubt most readers will feel that important titles have been omitted. An attempt has been made, however, to include materials published since January 1, 1945, which seem to have special importance for this area.

The American Character and Tradition

Each succeeding present has a new past. It not only has more past; it sees its past from a new vantage, a new perspective, with new attitudes, values and needs. Hence the writing of history betrays nearly as much of the writer and his day as of the times of which he writes. The great volume of contemporary writing about the American past, including biographies and autobiographies, represents new assessments, new interpretations of our tradition from the perspective of the values and institutions of our day. So it is with selections and publications of the writings of our great figures.

Much energy has gone into the reinterpretation of our tradition and in making available the source material on which it is based. Nevins (107), Grierson (59), and Coulter (37) have made scholarly re-examinations of the periods immediately before and after the Civil War, throwing new light on the background and roots of still-burning issues. Hacker (61) has collected the basic documents of American history, permitting us to get nearer the sources of our tradition. Blegen (19) has written history in terms of the lives of the humble and commonplace. Agar (1) condensed Henry Adams' monumental nine-volume classic and made it more readily available for general use. Paxson (119), Wecter (153) and Schrifftgiesser (131) explored our more recent past, sometimes with caustic comment.

Recent years have brought a rich harvest of studies of American protest and liberalism. Bowers' (21) and Lehmann's (82) studies of Jefferson are in this mood; biographies of Tom Paine (160), Francis Lieber (55), Gene Debs (102), and Peter Algeld (49) give one a lively sense of the dynamic and democratic character of our tradition. Nor is the spirit of protest and democracy dulled as evidenced by the biographies of more recent characters such as George Norris (111), Louis Brandeis (95), and David Lilienthal (156).

Interest in our political origins was expressed in a new edition of Becker's *Declaration of Independence* (14) and in Beard's *The Enduring Federalist* (13), Van Doren's *Great Rehearsal* (149), and Kelly and Harbison's *The American Constitution* (74).

America has always had a self-conscious interest in others' opinions of her from the time of de Tocqueville and Lord Bryce. Commager's *America in Perspective* (33) and Nevins' *America Through British Eyes* (108) are collections of such observations. Laski (80) and Hutton (66), themselves British, have given us a contemporary picture of ourselves by very intelligent friends. Visson (150) attempted to assess the view others have of us today.

Whatever may be said for our cohesion and national unity, and for our national character, America has marked regional characteristics and regional problems. It is particularly interesting therefore to find white and colored scholars in the South approaching the problem of race relations in a similar mood. Thus we see that Howard Odum (113), sociologist, and Charles Johnson (68), President of Fiske University, have arrived at very similar constructive and hopeful conclusions on the race problem. Kennedy (75), and Berge (17) each charged the financial and industrial interests of the North and East with obstructing the healthy cultural, political, and economic development which otherwise would have occurred in the South and West.

Herbert Schneider (130) in *A History of American Philosophy* has done for systematic thought in America what Parrington did for social attitudes and ideas.

American Ideals: Re-examination of the Sources of Democratic Ideas and Institutions

The great descriptive and analytical study of democracy is still de Tocqueville's (42) famous *Democracy in America* which was recently republished. Read in its proper perspective de Tocqueville's work still remains a rich mine of analysis and insight.

Kautsky (73) is a must for anyone who would understand the issues among democracy, socialism, and communism. His treatment was a distillation of a lifetime of wisdom on a matter of critical importance to our time. He identified socialism with Marx and Engels, and communism with Lenin. Perry (120) traced the development of our American ideals from their sources. The last part of the volume is a judicious philosophical appraisal of democracy. Gabriel (57) is an excellent fourth to add to the preceding titles. He traced the forces and ideals at play in America during the past century which have formed our contemporary democratic idea and ideal. Allen's (2) *Walt Whitman Handbook* is a scholarly definitive study of America's greatest poet and idealist. Curti (39) traced the growth of a common American loyalty.

Analysis and Criticism of the Democratic Idea, Institutions, and Morals

The preceding section was concerned with historic roots. The present section is concerned with contemporary analysis and criticism.

Carl Becker (16) re-examined our older values in the light of present needs. In *Freedom and Responsibility* (15) he was concerned lest the appeals to naked force usher in a new Dark Age. The Whitehead (155) and Dewey (43) volumes are collections of recent essays, many of which are devoted to problems of values, democracy, and human relations. Tawney (140) is a reprint of an old classic which challenged the basic assumptions of an acquisitive society.

Naturalism and the Human Spirit, edited by Krikorian (79), is an interpretation of the disclosures of science and scientific method. The claim is made that the method of science makes it the only secure philosophy for democracy, since all its positions are open and subject to check and verification. Jacques Maritain (93), a Catholic philosopher, traced the "fundamental errors" of the modern world to Descartes. Weldon (154) in *States and Morals* showed the moral roots of our political life.

Ernst (48), Douglas (46), Arnall (5), and Frank (54), all active in public life, have attempted to state the fundamental issues and problems confronting the American people and to underline the values of the tradition by which they can move forward. Chase (30) has written in a similar vein. Mumford (104) challenged the "Liberals" and the "Pragmatists" with lack of clarity, lack of vision, and lack of conviction. Many readers are likely to feel, however, that he is not very careful in defining the point of view he attacks.

C. I. Lewis (84) has made the most profound and systematic analysis of the problem of values of which the writer is aware. Here is a secure philosophic cornerstone for the democratic way of life. No one with philosophic pretensions can afford to neglect this volume. It was written from the general Dewey point of view but approached with the instruments of symbolic logic. Friedman (56) made a very competent analysis of various approaches to evaluation and methods of measurement.

One of the important developments of our time is the growing social awareness of scientists and engineers. The atomic bomb and Hiroshima greatly intensified their searching of soul. As a result we find the atomic scientists organized and raising huge sums of money for the education of people. They have also published a bulletin (7) in which they have articulated their soul searching. Mills (99) was concerned with the same problem. It has become increasingly clear that no vocation can ignore its functional responsibilities to our common life. Few problems are more acute than the failure of special interests and specialized occupations to understand their social role or to dedicate themselves to it. The *Bulletin of the Atomic Scientists* is making intellectual history because of its preoccupation with this problem.

Intellectual Method, Science and Democracy

There are many who see science not only as the great moving force of the modern world, but when extended to human affairs as the heart of democratic method. Conant (36) was among those who have developed this thesis. Skyrock (135) presented an admirable instance of the cultural approach to the study of a science. He traced the development of modern medicine in its interrelationships with the other sciences, politics, economics, and the general culture.

Cannon's (27) great autobiography was important because of his discussions of the logic, methods, and the personal character of scientists. Polya's (121) *How To Solve It* analyzed the methods of discovery and invention. Dunham (47) has made a critical analysis of some of the social illusions which rob mankind of abundance, equality, peace, and freedom. This book pointed the alternative to science as sanction for belief and method of social control.

Threats to Democracy: Methods of Defense and Attack

Stuart Chase (29) discussed the transition from an individualistic, *laissez-faire*, competitive economy and politics which still employ the stereotypes of the earlier economy. The struggle of big interests to milk the economy not only destroys public welfare but any interest in an understanding of public welfare.

Baldwin (9) followed the same line of thought in connection with the problem of the big military. While excessive military weakness can invite attack, excessive strength can precipitate war. Not only that; it might seriously threaten our civil liberties and carry an overwhelming weight in the councils of government.

Koestler (77), Kravchenko (78) and Orwell (115) dealt with the threat of communism to democracy. Orwell's brilliant satire on the rise of dictatorship under the guise of democracy is worthy of Jonathan Swift.

Ross (126) discussed the achievement of the F. E. P. C. during wartime. *Prejudice and Property* (32) was presented as the brief against racial covenants before the Supreme Court recently. Moon (101) underscored not only the moral but the economic costs of prejudice which are incalculable.

Brunner (25) pointed out that men suffering most heavily from injustice may not prefer formal democracy to totalitarianism. Had the church preached justice in due time a "proletariat would probably never have come into existence." A Protestant theologian, he is opposed to absolutist individualism and to collectivism.

Asch (6), Parkes (118), Steinberg (137), McWilliams (91), and Katkov (72) all wrote concerning the problem of anti-Semitism. Mary Ovington (117) wrote the history of the National Association for the Advancement of Colored People.

Lilge (85), Fine (52), Dewey (44), and Brameld (23) analyzed some serious problems in education. Chatto (31) and Oland (114) reported the work of the Springfield schools in their attack upon prejudice. MacIver (89), de Huszar (41) and Lohman (87) dealt with democratic methods and technics. Lohman's manual should be in the hands of every police officer in the nation. All the books in this group have made significant contributions to the understanding of the problem of intergroup relations and to the technics and processes of democracy.

Among the most important, if not the most important publication in this field, was the *Report of the President's Committee on Civil Rights* (148). Its appearance was a great event in the history of democracy.

Jordan's *Manifesto for the Atomic Age* (70) represented the point of view of the Association of Atomic Scientists regarding the meaning of the atom bomb and of atomic energy for the future of man and democracy. Cousins' (38) *Modern Man is Obsolete* tried to awaken modern man to his tremendous need for intellectual and moral growth to meet the challenge of atomic warfare.

Communications

The vitality of democracy depends in no small way upon the free and fair dissemination of information and ideas. Lyman Bryson (26), Leonard Doob (45), Alexander Meiklejohn (96), and Marshall Field (51) analyzed and developed this general problem.

The University of Chicago established a commission on freedom of the press. The commission was to survey the freedom functions, and responsibility of the various communications media, radio, press, and films. *Peoples Speaking to Peoples* (35) was its first report and raised many challenging issues. Professor Hocking (63), for the commission, developed a philosophic framework of principles to guide the commission. The Commission on Freedom of the Press (34) presented a report, *A Free and Reasonable Press*. Ruth Inglis (67) reported on *Freedom of the Movies* for the commission. Nine Nieman fellows under the editorship of Leon Svirsky (139) described the kind of press professional journalists would like to work on and for. John Tebbel (141, 142) made two case studies of American journalism: the story of the Medill, McCormick, and Patterson families, and George Horace Lorimer and the *Saturday Evening Post*. Williamson (158) made a similar study of Frank Gannett. Robert Jones (69) wrote a history of American journalism. Hughes (65) traced the origin of the "Yellow Press." George Seldes (133) challenged the character and integrity of American journalism in his attack upon the owners and editors of the American press.

Siepmann (134), a former official of the British Broadcasting Company, and a former consultant of the Federal Communications Commission, analyzed the American radio industry and its significance for American democracy. He believes the air belongs to the people and should be made

to serve their needs. He sees in the development of frequency modulation a second chance for the radio industry and the American people to make radio serve public interest.

The University Press as an institution plays a crucial role in American publishing. This role is analyzed in the *Saturday Review of Literature* (129), and by Wilson and Tauber (159).

Education and the Democratic Idea

It was not planned to include any extensive list of educational titles in this review. Those listed are included because of their more explicit bearing on the democratic ideal. Since the professional worker will be familiar with these titles thru the educational press, little comment here is needed.

Hook (64) and Berkson (18) have re-examined our educational theory in light of our democratic idea. Both are profound and stirring. Brameld (22) wrote of an educational experiment in helping young people achieve a democratic orientation to their futures. Kirkendall (76) presented an official statement of the position of more than 50,000 union teachers.

Raup (124) made an effort to clarify the meaning of discipline for democracy. Yesipov's (161) *I Want to Be Like Stalin* has proved to be invaluable in giving us insight into Soviet discipline. It was a translation of selections from a Soviet text on pedagogy dealing with civic education. It set forth a well-nigh technically perfect method whose very perfection frightens one. We have nothing comparable in the cultivation of democratic citizenship. Our democracy would be secure against all odds if we had a generation of schooling as effectively oriented to the democratic idea.

Much excellent thinking has gone into the re-examination of higher education. The report of the President's Commission on Higher Education (147) was a historic landmark. While not concerned with curriculum or method, it was a very ambitious study of goals, equalization of opportunity, organization, and basic data on financing. On the whole it is a magnificent combination of idealism and realism.

Democracy and Economics

The depression, the enormous growth of monopoly, and the war economy have all stimulated a remarkable effort to re-examine the basic premises of our economic theory. A wholesome effort on the part of economic thinkers to shake off an older theological cast of mind and to explore economic phenomena with a fresh approach is apparent. Most important, the concept of "Economic Man" seems to have been pretty well buried. Economic phenomena has come to be recognized as an organic function of the social process. Ayers (8), for example, assigned to economics the task of helping us to find out how to fulfill our deeper needs. For him it was a realistic strong right arm of democratic idealism.

Ruml (127) analyzed business as a human function. Its task is to

prepare things for use, provide people with significant purposeful activity, and to give them a way to save part of what they earn. The ultimate test of business is whether it helps or hinders people to achieve personal dignity and freedom. The demand for freedom, he said, is the demand for growth, for life, in mind and spirit as well as body. The business of government is to maintain and protect freedom, freedom not only for business, but freedom for all men. Both must constantly be judged by this test. Unfortunately little or no attention is given to the effort of business to capture government to use it for its narrow ends.

It is here that the studies of Marlio (94), Sasuly (128), and Stocking and Watkins (138) are important. They all dealt with one of the great problems of our age, the concentration of economic power in cartels and large corporations. Burns and Cain (146) have studied this problem in relation to the power industry.

Resources and Population

Recent years have seen a renewed interest in the problem of population as related to resources. It is estimated that at the present rate of increase, world population will double in seventy years. Yet present arable land is scarcely adequate to support the present population. More disquieting is the fact that bad soil management is stripping the earth of our best soils in all countries save Western Europe and Japan. It would seem therefore that if mankind is to avert world catastrophe, the rate of population increase must be reduced on the one hand and land usage must be revolutionized on the other.

Thompson's (143) study was profoundly disquieting. The peoples of Southeast Asia and Oceania are multiplying very rapidly. At the same time they are denuding their lands of soil by bad management. If this continues the consequences for peace and war are ominous.

Osborn (116) and Vogt (151) dealt with the same problem on a world basis. Osborn pointed out that man himself is a geological factor which is rapidly destroying the basis of life on the planet. Bromfield (24), a lover of the soil and of farming, has written an important book about agriculture and human life. The book gives great hope for what may be done to restore the geological and biological basis of life on this planet. It is clear that unless the world can cope with the joint problems of population growth and land use we are confronted with almost continuous warfare and destruction of soils until the planet becomes unfit for life of any kind.

Schultz (132) held that a necessary condition for continuing agricultural prosperity is full employment and high production on the part of industry. This will mean an average rate of increase in productivity of 4 to 6 percent. Agriculture in turn should increase its production at the rate of 2 percent per year. Griswold (60) argued that a healthy agricultural life is the

cornerstone of democracy. Harding (62) showed the great achievements of Federal Agricultural Research in increased agricultural productivity.

Democracy and the Labor Movement

The first act of the dictators in Italy, Japan, the Balkans, Germany, Spain, and Russia has been to either destroy the labor movement or to subject it to government domination. In either instance free labor has been killed. Hence the development of labor in America is of great significance to our democracy. Free labor and democracy are complementary terms, each essential to the other.

Roe (125), Wechsler (152), and Mills (100) were impressed with the great power in the hands of leaders of big unions. At the same time, Barbash (10), Botany Mills (20), Lever and Goodell (83), and the National Planning Association (106) studied the cooperative possibilities between labor and management. This movement of labor management cooperation may in the long run prove one of the great developments of our time and the ultimate safeguard of our democracy. There has been, however, little significant activity to bring the consuming public into the cooperative picture. Yet certainly, the public often has as great a stake in industrial peace and the terms of that peace as does either of the other parties.

Organization for Democracy: Political Theory, Practice and Institutions

The recent past has seen considerable re-examination of our basic political theory. Merriam (97), in a summary volume, presented the thoughts of a great politician, scientist and democrat. Weldon (154) made a fundamental examination of the moral sanctions upon which states are built, and of their roots in the basic values of the people. Societies with differences in basic values can get along together only if neither claims to be "right" or absolute. They must avoid mutual abuse and they must avoid moral or religious issues.

MacIver (90) studied government in relation to the other institutions and forces in society as an organic function of the total culture. His point of view stressed the roots of government in the familiar everyday affairs of life. Ernest Barker (11), the foremost British Aristotelian scholar, has translated the greatest text ever written on politics, a seminal source of democratic idealism in spite of Aristotle's aristocratic background and predilections. Charles Beard (12), in familiar conversational form, discussed the fundamental concepts underlying the American system of government.

Cassirer (28), one of the major bequests of Hitler to American scholarship and philosophy, traced the development of political thought in the western world and the role of myth in political life. Lasswell (81) developed the theme of personality in politics.

Not only has there been searching of heart and mind for theoretical orientation to our political life, but much good thinking has gone into the restructuring of major political institutions. Galloway's (58) study, for example, was a veritable "encyclopedia on the American Congress," an important study of the problems of congress and congressmen. Finletter (53) questioned whether the present division of powers in our government may not result in collapse in the presence of the momentous problems with which it must cope. Pritchett (122) and Curtis (40) studied the Supreme Court in its contemporary role while Newman and Miller (110) were concerned with the impact of atomic energy upon our political structures. Allen (3) and Milligan (98) reported on municipal politics in America while Moscow (103) analyzed the political forces and practices of New York State.

The experience of two world wars and the development of the Tennessee Valley Authority have persuaded increasing numbers of thoughtful people that planning is essential to any modern society if it is to survive. They pointed out that there is nothing in the idea of planning that is contrary to democracy. It is rather a matter of planning democratically. Lorwin (88) has developed a most fundamental statement of the basic philosophy of planning in American democratic terms. Mannheim (92) has outlined a theoretical approach to planning. He developed the continuity of planning with the Western democratic Christian culture. His was a profound sociological and philosophical analysis. Lilienthal (86) has made an invaluable report on the greatest American political-economic experiment in our time.

The crucial problem for democracy is the democratization of management and administration whether public or private. Therefore, the thinking in this area is of supreme importance. Pritchett (123) analyzed the Tennessee Valley Authority as a problem in public administration. Appleby's (4) *Big Democracy* was a brilliant analysis of the central problems of public administration, particularly at the top level. As Under Secretary of Agriculture for many years and as Assistant Director of the Bureau of the Budget in the last years under Roosevelt he speaks with the authority of experience.

The Nature of Man and Culture

If we think of democracy as a way of life, political, economic, moral, intellectual, esthetic, and religious, then our growing knowledge of man and culture must constantly redefine our concept of democracy.

One of the most significant developments of recent years was the organization of the Society for Psychological Study of Social Issues. Here we find one of the finest illustrations of the relation of science to democracy. Members of this society and the society as an organization have employed the method of science for the illumination of the democratic idea as well as social issues. The society has published yearbooks since 1943.

The Journal of Social Issues (136) threw new light on human relations in all our institutions and on problems of world order itself. Murphy and others (105) have focused their scientific technics and resources upon the problem of peace. Newcomb and Hartley (109) have collected the recent materials in social psychology which bear on fundamental social and democratic problems. The work of this society revealed the enormous potentials of the sciences in serving the social and moral needs of men once scientists recognize their democratic responsibilities.

Kardiner (71) studied the relation of early child training to the general culture. This study suggested that the most important thing about a culture is its methods of early childhood training. This further suggests that a democracy can do nothing more important than to encourage the scientific study of child care and to disseminate the results of that study.

The Philosophy of History and Culture

A general theory of culture, Fiebleman (50) said, must serve as the conceptual framework for the social-human sciences, just as physics and biology provide conceptual frameworks for subordinate natural sciences. The individual; economic life; and political, educational, and other institutions can be understood only within the context of cultures. Hence the secure progress of the various human-social sciences depends upon the intellectual structure supplied by a theory of culture. Fiebleman approached his problem from the standpoint of ontology and from empirical fact. He believes that his conceptual framework is more general than other approaches but may include them and is prepared to meet the test of applicability.

Toynbee (144, 145) took civilization as the unit of study. The effort to understand smaller units apart from the civilization is abortive and inconclusive. The dynamics of civilization operate thruout it. Sub-units have meaning only as seen in the context of the forces which permeate the civilization.

On the basis of this study of a number of civilizations he undertook to generalize about them, to identify their dynamics. He concluded that the basic facts about them are the facts of challenge and response. Civilizations that fail to respond to challenge or which fail to meet their challenge decay; yet each response creates new conditions and new challenges. So long as the civilization continues to respond effectively it remains dynamic.

Northrop (112) analyzed the basic philosophic presuppositions of the various cultures. He assumed that world unity depends upon the development of a world culture which in turn depends upon a common world outlook. Hence he proposed the task of reconciling, expanding, and supplementing our basic values and preconceptions as a basis for a common philosophy of world culture. Whatever one may think of his proposal, it is fascinating and very provocative and informative.

Whyte (157) stated his belief that we are witnessing the collapse of

European civilization (of which we are a part) but that a new and very much grander civilization is struggling for birth. He thinks it is founded upon values, concepts, and modes of thought which are contrary to the character of man and nature, and hence lead us from one type of frustration to another. However, as men forsake old values and modes of thought because of failure to lead them fruitfully, their disillusion will clear the way for ideals and modes of thought, more congruous to the nature of the world and man, which in turn will lead them to more effective controls of their common life. This shift to a new way of life will involve a cultural transformation as profound and extensive as the shift from pagan to modern civilization.

This shift may not mean the discarding of our contemporary civilization. On the contrary most of it will remain intact. It will mean rather the reconstruction of certain basic attitudes, values, preconceptions, and methods of thinking. It will involve a change in perspective that will preserve the great achievements of the western world but in such a way that they will form an organic culture. His analysis and proposals are stated very persuasively, even excitingly. For all he may seem so bold he is actually speaking in the idiom and ideology of recent developments in the sciences and philosophy. He is really saying we must now reconstruct our framework of values, thought, and culture in terms of our present best thought. Failure to do so will mean the collapse of Western civilization. However, he is optimistic in his faith that the superior effectiveness of recent modes of thought will give them such operative and persuasive advantage that they will readily supplant the old.

Bibliography

1. ADAMS, HENRY. *The Formative Years*. (Agar, Herbert, editor). Two volumes. Boston: Houghton Mifflin Company, 1947. 1067 p.
2. ALLEN, GAY WILSON. *Walt Whitman Handbook*. Chicago: Packard and Company, 1946. 544 p.
3. ALLEN, ROBERT S., editor. *Our Fair City*. New York: Vanguard Press, 1947. 387 p.
4. APPLEBY, PAUL H. *Big Democracy*. New York: Alfred A. Knopf, 1945. 197 p.
5. ARNALL, ELLIS GIBBS. *What the People Want*. Philadelphia: J. B. Lippincott Company, 1948. 286 p.
6. ASCH, SHOLEM. *One Destiny*. New York: G. P. Putnam's Sons, 1945. 88 p.
7. ATOMIC SCIENTISTS OF CHICAGO. BULLETIN OF THE ATOMIC SCIENTISTS. Chicago 37: Atomic Scientists of Chicago. 1126 East 59th Street. (Monthly publication.)
8. AYERS, CLARENCE E. *The Divine Right of Capital*. Boston: Houghton Mifflin Company, 1946. 214 p.
9. BALDWIN, HANSON W. *The Price of Power*. New York: Harper and Brothers, 1948. 361 p.
10. BARBASH, JACK. *Labor Unions in Action*. New York: Harper and Brothers, 1948. 270 p.
11. BARKER, ERNEST. *The Politics of Aristotle*. New York: Oxford University Press. 1946. 411 p.
12. BEARD, CHARLES A. *The Republic*. New York: The Viking Press, 1943. 365 p.
13. BEARD, CHARLES A., editor. *The Enduring Federalist*. New York: Doubleday and Company, 1948. 391 p.
14. BECKER, CARL L. *The Declaration of Independence: A Study of the History of Political Ideals*. New York: Alfred A. Knopf, 1945. 286 p.

15. BECKER, CARL L. *Freedom and Responsibility in the American Way of Life*. New York: Alfred A. Knopf, 1945. 122 p.
16. BECKER, CARL L. *New Liberties for Old*. New Haven: Yale University Press, 1941. 181 p.
17. BERGE, WENDELL. *Economic Freedom for the West*. Lincoln: The University of Nebraska Press, 1946. 168 p.
18. BERKSON, ISAAC B. *Preface to an Education Philosophy*. New York: Columbia University Press, 1940. 250 p.
19. BLEGEN, THEODORE C. *Grass Roots History*. Minneapolis: The University of Minnesota Press, 1947. 266 p.
20. BOTANY MILLS, INCORPORATED. *The Botany Plan*. A Cooperative Course in Labor-Management Relations Conducted Jointly by Botany Mills Incorporated, of Passaic, New Jersey and Textile Workers Union of America. Passaic: Botany Mills, Incorporated, 1947. 190 p.
21. BOWERS, CLAUDE G. *The Young Jefferson: 1743-1789*. Boston: Houghton Mifflin Company, 1945. 543 p.
22. BRAMELD, THEODORE. *Design for America*. New York: Hinds, Hayden and Eldredge, 1945. 165 p.
23. BRAMELD, THEODORE. *Minority Problems in the Public Schools*. New York: Harper and Brothers, 1946. 264 p.
24. BROMFIELD, LOUIS. *A Few Brass Tacks*. New York: Harper and Brothers, 1946. 303 p.
25. BRUNNER, EMIL. *Justice and the Social Order*. New York: Harper and Brothers, 1946. 304 p.
26. BRYSON, LYMAN; FINKELSTEIN, LOUIS; and MACIVER, ROBERT M. *Approaches to Human Understanding*. New York: Harper and Brothers, 1947. 858 p.
27. CANNON, WALTER B. *The Way of the Investigator*. New York: W. W. Norton and Company, 1945. 223 p.
28. CASSIRER, ERNEST. *The Myth of the State*. New Haven: Yale University Press, 1946. 303 p.
29. CHASE, STUART. *Democracy Under Pressure*. New York: Twentieth Century Fund, 1945. 142 p.
30. CHASE, STUART. *For This We Fought*. New York: Twentieth Century Fund, 1946. 123 p.
31. CHATTO, CLARENCE I., and HALLIGAN, ALICE L. *The Story of the Springfield Plan*. New York: Barnes and Noble, 1945. 201 p.
32. CLARK, THOMAS C., and PERLMAN, PHILIP B. *Prejudice and Property*. Washington, D. C.: Public Affairs Press, 1947. 104 p.
33. COMMAGER, HENRY STEELE, editor. *America in Perspective*. New York: Random House, 1947. 349 p.
34. COMMISSION ON FREEDOM OF THE PRESS. *A Free and Responsible Press*. Chicago: University of Chicago Press, 1947. 138 p.
35. COMMISSION ON FREEDOM OF THE PRESS. *Peoples Speaking to Peoples*. Chicago: University of Chicago Press, 1946. 121 p.
36. CONANT, JAMES B. *On Understanding Science*. New Haven: Yale University Press, 1947. 109 p.
37. COULTER, E. MERTON. *The South During Reconstruction, 1865-1877*. Baton Rouge: Louisiana State University Press, 1947. 426 p.
38. COUSINS, NORMAN. *Modern Man Is Obsolete*. New York: The Viking Press, 1945. 59 p.
39. CURTI, MERLE. *The Roots of American Loyalty*. New York: Columbia University Press, 1946. 267 p.
40. CURTIS, CHARLES P. *Lions Under the Throne*. Boston: Houghton Mifflin Company, 1947. 368 p.
41. DE HUSZAR, GEORGE B. *Practical Applications of Democracy*. New York: Harper and Brothers, 1945. 140 p.
42. DE TOCQUEVILLE, ALEXIS C. *Democracy in America*. New York: Alfred A. Knopf, 1945. 434 p.
43. DEWEY, JOHN, editor. *The Authoritarian Attempt to Capture Education*. New York: Kings Crown Press, 1945. 152 p.
44. DEWEY, JOHN. *Problems of Men*. New York: Philosophical Library, 1946. 424 p.
45. DOOB, LEONARD W. *Public Opinion and Propaganda*. New York: Henry Holt and Company, 1948. 600 p.

46. DOUGLAS, WILLIAM O. *Being an American*. New York: The Viking Press, 1948. 275 p.
47. DUNHAM, BARROW. *Man Against Myth*. Boston: Little, Brown and Company, 1947. 320 p.
48. ERNST, MORRIS L. *So Far So Good*. New York: Harper and Brothers, 1948. 271 p.
49. FAST, HOWARD. *The American*. New York: Duell, Sloan and Pearce, 1946. 332 p.
50. FIEBLEMAN, JAMES. *The Theory of Human Culture*. New York: Duell, Sloan and Pearce, 1946. 361 p.
51. FIELD, MARSHALL. *Freedom Is More than a Word*. Chicago: University of Chicago Press, 1945. 160 p.
52. FINE, BENJAMIN. *Our Children Are Cheated*. New York: Henry Holt and Company, 1947. 622 p.
53. FINLETTER, THOMAS K. *Can Representative Government Do the Job?* New York: Reynal and Hitchcock, 1945. 184 p.
54. FRANK, JEROME. *Fate and Freedom*. New York: Simon and Schuster, 1945. 220 p.
55. FRIEDEL, FRANK. *Francis Lieber: Nineteenth Century Liberal*. Baton Rouge: Louisiana State University Press, 1948. 445 p.
56. FRIEDMAN, BERTHA B. *The Foundations of the Measurements of Values: The Methodology of Location and Quantification*. New York: Teachers College, Columbia University, 1946. 227 p.
57. GABRIEL, RALPH HENRY. *The Course of American Democratic Thought*. New York: The Ronald Press Company, 1939. 452 p.
58. GALLOWAY, GEORGE B. *Congress at the Crossroads*. New York: The Thomas Y. Crowell Company, 1946. 374 p.
59. GRIERSON, FRANCIS. *The Valley of Shadows*. Boston: Houghton Mifflin Company, 1948. 278 p.
60. GRISWOLD, ALFRED WHITNEY. *Farming and Democracy*. New York: Harcourt, Brace and Company, 1948. 227 p.
61. HACKER, LOUIS M. *The Shaping of the American Tradition*. Two volumes. New York: Columbia University Press, 1947. 1248 p.
62. HARDING, T. SWANN. *Two Blades of Grass*. Norman: University of Oklahoma Press, 1947. 332 p.
63. HOCKING, WILLIAM ERNEST. *Freedom Is More than a Word*. Chicago: University of Chicago Press, 1947. 239 p.
64. HOOK, SIDNEY. *Education for Modern Man*. New York: Dial Press, 1946. 233 p.
65. HUGHES, HELEN MCGILL. *News and the Human Interest Story*. Chicago: University of Chicago Press, 1940. 313 p.
66. HUTTON, GRAHAM. *Midwest at Noon*. Chicago: University of Chicago Press, 1946. 251 p.
67. INGLIS, RUTH A. *Freedom of the Movies*. Chicago: University of Chicago Press, 1947. 240 p.
68. JOHNSON, CHARLES S. AND OTHERS. *Into the Maine Stream*. Chapel Hill: University of North Carolina Press, 1947. 333 p.
69. JONES, ROBERT W. *Journalism in the United States*. New York: E. P. Dutton and Company, 1947. 728 p.
70. JORDAN, VIRGIL. *Manifesto for the Atomic Age*. New Brunswick, New Jersey: Rutgers University Press, 1946. 70 p.
71. KARDINER, ABRAHAM. *The Psychological Frontiers of Society*. New York: Columbia University Press, 1945. 475 p.
72. KATKOV, NORMAN. *Eagle at My Eyes*. New York: Doubleday and Company, 1948. 252 p.
73. KAUTSKY, KARL. *Social Democracy vs. Communism*. (Shub, David, editor.) New York: Rand School Press, 1946. 142 p.
74. KELLY, ALFRED H. AND HARBISON, WINIFRED A. *The American Constitution: Its Origin and Development*. New York: W. W. Norton and Company, 1948. 940 p.
75. KENNEDY, STETSON. *Southern Exposure*. New York: Doubleday and Company, 1946. 372 p.
76. KIRKENDALL, LESTER A. AND OTHERS. *Goals for American Education*. Chicago: The American Federation of Teachers, 1948. 130 p.
77. KOESTLER, ARTHUR. *The Yogi and the Commissar, and Other Essays*. New York: The Macmillan Company, 1945. 247 p.

78. KRAVCHENKO, VICTOR A. *I Chose Freedom*. New York: Charles Scribner's Sons, 1946. 421 p.
79. KRIKORIAN, YERVANT H., editor. *Naturalism and the Human Spirit*. New York: Columbia University Press, 1944. 397 p.
80. LASKI, HAROLD J. *The American Democracy*. New York: The Viking Press, 1948. 785 p.
81. LASSWELL, HAROLD DWIGHT. *Power and Personality*. New York: W. W. Norton and Company, 1948. 236 p.
82. LEHMANN, KARL. *Thomas Jefferson, American Humanist*. New York: The Macmillan Company, 1947. 273 p.
83. LEVER, EMIL J. AND GOODELL, FRANCIS. *Labor-Management Cooperation and How To Achieve It*. New York: Harper and Brothers, 1948. 143 p.
84. LEWIS, CLARENCE IRVING. *An Analysis of Knowledge of Valuation*. La Salle, Illinois: The Open Court Publishing Company, 1947. 567 p.
85. LILGE, FREDERIC. *The Abuse of Learning: The Failure of the German University*. New York: The Macmillan Company, 1948. 184 p.
86. LILIENTHAL, DAVID E. *TVA: Democracy on the March*. New York: Harper and Brothers, 1944. 248 p.
87. LOHMAN, JOSEPH D. *The Police and Minority Groups*. Chicago: Chicago Park District, 425 East Fourteenth Boulevard, 1947. 133 p.
88. LORWIN, LEWIS L. *Time for Planning: A Social Economic Theory and Program for the Twentieth Century*. New York: Harper and Brothers, 1945. 273 p.
89. MACIVER, ROBERT M. *The More Perfect Union*. New York: The Macmillan Company, 1948. 311 p.
90. MACIVER, ROBERT M. *The Web of Government*. New York: The Macmillan Company, 1947. 498 p.
91. MCWILLIAMS, CAREY. *A Mask for Privilege: Anti-Semitism in America*. Boston: Little, Brown and Company, 1948. 299 p.
92. MANNHEIM, KARL. *Diagnosis of Our Time*. New York: Oxford University Press, 1944. 195 p.
93. MARITAIN, JACQUES. *The Dream of Descartes*. New York: Philosophical Library, 1945. 220 p.
94. MARLIO, LOUIS. *The Aluminum Cartel*. Washington, D. C.: Brookings Institution, 1947. 130 p.
95. MASON, ALPHEUS THOMAS. *Brandeis, A Free Man's Life*. New York: The Viking Press, 1946. 713 p.
96. MEIKLEJOHN, ALEXANDER. *Free Speech and Its Relation to Self Government*. New York: Harper and Brothers, 1948. 107 p.
97. MERRIAM, CHARLES E. *Systematic Politics*. Chicago: University of Chicago Press, 1945. 348 p.
98. MILLIGAN, MAURICE M. *The Inside Story of the Pendergast Machine*. New York: Charles Scribner's Sons, 1948. 281 p.
99. MILLS, JOHN. *The Engineer in Society*. New York: D. Van Nostrand Company, 1946. 196 p.
100. MILLS, C. WRIGHT. *The New Men of Power*. New York: Harcourt, Brace and Company, 1948. 291 p.
101. MOON, BUCHLIN. *The High Cost of Prejudice*. New York: Julian Messner, Incorporated Publishers, 1947. 168 p.
102. MORAIS, HERBERT M. AND CAHN, WILLIAM. *Gene Debs*. New York: International Publishers Company, 1948. 128 p.
103. MOSCOW, WARREN. *Politics in the Empire State*. New York: Alfred A. Knopf, 1948. 248 p.
104. MUMFORD, LEWIS. *Values for Survival*. New York: Harcourt, Brace and Company, 1946. 272 p.
105. MURPHY, GARDNER, editor. *Human Nature and Enduring Peace*. Society for the Psychological Study of Social Issues. Third Yearbook. Boston: Houghton Mifflin Company, 1945. 475 p.
106. NATIONAL PLANNING ASSOCIATION. COMMITTEE ON THE CAUSES OF INDUSTRIAL PEACE UNDER COLLECTIVE BARGAINING. *Causes of Industrial Peace Under Collective Bargaining*. Washington, D. C.: the Association, 1948. Parts I and II. 158 p.

107. NEVINS, ALLAN. *Ordeal of the Union*. Two volumes. New York: Charles Scribner's Sons, 1947. 1183 p.
108. NEVINS, ALLAN, editor. *America Through British Eyes*. New York: Oxford University Press, 1948. 530 p.
109. NEWCOMB, THEODORE M. AND HARTLEY, EUGENE L. *Readings in Social Psychology*. New York: Henry Holt and Company, 1947. 672 p.
110. NEWMAN, JAMES R. AND MILLER, BYRON S. *Control of Atomic Energy*. New York: Whittlesey House, 1948. 434 p.
111. NORRIS, GEORGE. *Fighting Liberal*. New York: The Macmillan Company, 1945. 419 p.
112. NORTHROP, FILMER S. C. *The Meeting of East and West*. New York: The Macmillan Company, 1946. 531 p.
113. ODUM, HOWARD W. *The Way of the South*. New York: The Macmillan Company, 1947. 341 p.
114. OLAND, ALEXANDER AND WISE, JAMES WATERMAN. *The Springfield Plan*. New York: The Viking Press, 1945. 136 p.
115. ORWELL, GEORGE. *The Animal Farm*. New York: Harper and Brothers, 1946. 118 p.
116. OSBORN, FAIRFIELD. *Our Plundered Planet*. Boston: Little, Brown and Company, 1948. 217 p.
117. OVINGTON, MARY WHITE. *The Walls Came Tumbling Down*. New York: Harcourt, Brace and Company, 1947. 307 p.
118. PARKS, JAMES. *The Jewish Problem in the Modern World*. New York: Oxford University Press, 1946. 142 p.
119. PAXSON, FREDERIC L. "Postwar Years: Normalcy, 1918-1923." *American Democracy and the World War*, Vol. III. Berkeley: The University of California Press, 1948. 401 p.
120. PERRY, RALPH BARTON. *Puritanism and Democracy*. New York: Vanguard Press, 1944. 688 p.
121. POLYA, GYORGY. *How To Solve It*. Princeton: Princeton University Press, 1945. 204 p.
122. PRITCHETT, C. HERMAN. *The Roosevelt Court*. New York: The Macmillan Company, 1948. 314 p.
123. PRITCHETT, C. HERMAN. *The Tennessee Valley Authority*. Chapel Hill: University of North Carolina Press, 1943. 333 p.
124. RAUP, ROBERT BRUCE, chairman. "Discipline in Education." *Teachers College Record*, 46: 207-74; January 1945.
125. ROE, WELLINGTON. *Juggernaut: American Labor in Action*. Philadelphia: J. B. Lippincott Company, 1948. 375 p.
126. ROSS, MALCOLM. *All Manner of Men*. New York: Reynal and Hitchcock, 1948. 314 p.
127. RUMML, BEARDSLEY. *Tomorrow's Business*. New York: Farrar and Rinehart, 1945. 238 p.
128. SASULY, RICHARD. I. G. *Farben*. New York: Boni and Gaer, 1947. 312 p.
129. SATURDAY REVIEW OF LITERATURE. "University Press Issue." *Saturday Review of Literature*, 28: 7-38; June 9, 1945.
130. SCHNEIDER, HERBERT W. *A History of American Philosophy*. New York: Columbia University Press, 1946. 571 p.
131. SCHRIFTGIESSER, KARL. *This Was Normalcy*. Boston: Little, Brown and Company, 1948. 325 p.
132. SCHULTZ, THEODORE W., editor. *Food for the World*. Harris Foundation Lectures on International Relations, 1944. Chicago: University of Chicago Press, 1945. 352 p.
133. SELDES, GEORGE. *One Thousand Americans*. New York: Boni and Gaer, 1947. 312 p.
134. SIEPMAN, CHARLES. *Radio's Second Chance*. Boston: Little, Brown and Company, 1946. 276 p.
135. SKYROCK, RICHARD HARRISON. *The Development of Modern Medicine*. New York: Alfred A. Knopf, 1947. 457 p.
136. SOCIETY FOR PSYCHOLOGICAL STUDY OF SOCIAL ISSUES. *The Journal of Social Issues*. New York, 17: Association Press. 347 Madison Avenue. (Monthly publication.)

137. STEINBERG, MILTON. *A Partisan Guide to the Jewish Problem*. Indianapolis: Bobbs-Merrill Company, 1945. 308 p.
138. STOCKING, GEORGE W. P. AND WATKINS, MYRON W. *Cartels of Competition*. New York: The Macmillan Company, 1947. 202 p.
139. SVIRSKY, LEON, editor. *Your Newspaper*. New York: The Macmillan Company, 1947. 202 p.
140. TAWNEY, RICHARD H. *The Acquisitive Society*. New York: Harcourt, Brace and Company, 1946. 188 p.
141. TEBBEL, JOHN W. *An American Dynasty*. New York: Doubleday and Company, 1947. 363 p.
142. TEBBEL, JOHN W. *George Horace Lorimer and the Saturday Evening Post*. New York: Doubleday and Company, 1948. 355 p.
143. THOMPSON, WARREN S. *Population and Peace in the Pacific*. Chicago: University of Chicago Press, 1946. 397 p.
144. TOYNBEE, ARNOLD J. *Civilization on Trial*. New York: Oxford University Press, 1948. 263 p.
145. TOYNBEE, ARNOLD J. *A Study of History*. New York: Oxford University Press, 1947. 617 p.
146. TWENTIETH CENTURY FUND. Power Committee. *Electric Power and Government Policy*. New York: the Fund, 1948. 860 p.
147. U. S. PRESIDENT'S COMMISSION ON HIGHER EDUCATION. *Higher Education for American Democracy*. Five volumes. Washington, D. C.: U. S. Government Printing Office, 1947. 371 p.
148. U. S. PRESIDENT'S COMMITTEE ON CIVIL RIGHTS. *To Secure These Rights*. New York: Simon and Schuster, 1947. 178 p.
149. VAN DOREN, CARL. *The Great Rehearsal*. New York: The Viking Press, 1948. 263 p.
150. VISSON, ANDRE. *As Others See Us*. New York: Doubleday and Company, 1948. 252 p.
151. VOGT, WILLIAM. *Road to Survival*. New York: William Sloane, Associates, 1947. 355 p.
152. WECHSLER, JAMES A. *Labor Baron*. New York: William Morrow and Company, 1944. 278 p.
153. WECTER, DIXON. *The Age of the Great Depression: 1929-1941*. New York: The Macmillan Company, 1948. 352 p.
154. WELDON, THOMAS D. *States and Morals*. New York: Whittlesey House, 1947. 301 p.
155. WHITEHEAD, ALFRED NORTH. *Essays in Science and Philosophy*. New York: Philosophical Library, 1947. 348 p.
156. WHITMAN, WILLSON. *David Lilienthal*. New York: Henry Holt and Company, 1948. 245 p.
157. WHYTE, LANCELOT LAW. *Everyman Looks Forward*. New York: Henry Holt and Company, 1948. 78 p.
158. WILLIAMSON, SAMUEL T. *Imprint of a Publisher*. New York: Robert M. McBride and Company, 1948. 308 p.
159. WILSON, LOUIS POUNDLAND AND TAUBER, MAURICE F. *The University Library: Administration and Functions*. New York: Farrar and Rinehart, 1945. 372 p.
160. WOODWARD, WILLIAM E. *Tom Paine: America's Godfather*. New York: E. P. Dutton and Company, 1945. 359 p.
161. YESIPOV, BORIS P. AND GONCHAROV, N. K. *I Want to Be Like Stalin*. (Counts, George S. and Lodge, Nucia P., translators.) New York: John Day Company, 1947. 150 p.

CHAPTER II

Democratic Behavior and the Educative Process

GEORGE W. HARTMANN

GENUINELY comprehensive coverage is almost impossible to insure in this area, partly because commonly recognized content boundaries either do not exist or are difficult to distinguish. Most of the studies here cited are empirical essays in the semiliterary tradition rather than strictly experimental monographs, but taken as a whole they represent a sustained effort to mature and refine intellectual constructs to the point where definite hypotheses may be framed and tested. The summary which follows should support this assertion.

Miscellaneous Social-Science Background

A tentative characterization of the relevant literature during the post-war years of 1946, 1947, and most of 1948 indicates a continuation with diminished intensity of the emphases developed in the decade preceding the war. For example, the figures on the heavy concentration of profits of corporations and the sharply skewed distribution of the national income assembled by Edwards and Richey (16) suggest that the basic financial pattern of rewards for different social strata in the United States has remained essentially unaltered for more than a generation. The public schools as well as many other institutions have evidently not slowed the long-term drift toward economic monopoly or significantly reduced the inequalities of pecuniary power so pronounced in American culture. Recent discussions in the educational press have acknowledged this situation to constitute a persistent problem of democracy, but compared with former years there is a marked absence of any deep concern or sense of urgency in dealing with its many implications. The new treatment of an old theme by Payne and Hartmann (34) constituted an exception to this general assertion, particularly where it challenged the conventional view that even the admittedly unattained equality of opportunity for unequals was sufficient to meet evolving democratic standards.

Linked with this ever-present issue of progress toward an internal economic democracy are the grim issues of foreign relations, federal world government, control of the atomic bomb, conscription and military training, rearmament, and the persistent diplomatic tension between the governments of the U. S. A. and the U. S. S. R., a colossal power struggle in which rival conceptions of the nature of democracy play a prominent part. The propagandists for the Soviet Union (45) have argued that Article 123 of the Soviet Constitution as amended February 25, 1947, conferring full equality of rights on all citizens, irrespective of their nation-



ality or race, in all spheres of economic, governmental, cultural, political, and other public activity makes that system more authentically "democratic" than the American, even tho the reality of Communist dictatorship is tacitly admitted. This recognition of the asset-value of a cherished word plus some effort to show that it correctly describes a social reality is significant since originally the Bolshevik regime under Lenin expressed great scorn for the forms and phrases of "bourgeois" democracies.

Gallup (17) reported that in answer to the question "Do you think there is democracy in the following countries?" the American sample responded *Yes* in 88 percent of the cases for the United States, 48 percent for England, 5 percent for Russia, and 4 percent for Spain. Somewhat smaller percents in France, Sweden, Holland, and Norway agree roughly with the order of this native "self-estimate." In all these countries, plus England and Canada, when voters were asked, "What does the term 'democracy' mean to you?" three main categories of replies were given, viz., popular government, freedom of speech, and equality. The comparatively low position of England is puzzling, altho the figure of 48 percent given by Americans is oddly similar to the 50 percent given by English respondents themselves living under a labor government.

Parke (33) has held that mutual trust between the members of a family is the foundation for democracy in the home (by implication, within the largest social group as well) and the family council is advocated as a method for furthering favorable personality growth. Felix Cohen (9), in an impressive analysis of the claims of four scholarly commissions that Puerto Rico's basic problem is overpopulation (presumably correctible by rigorous birth control) maintained instead that poverty occurs wherever a nation exports matter and imports mind, i.e., cultural skills, and that "ignorance and illiteracy are extravagances that no poor country can afford."

Recent Concepts from Social Psychology

The halting efforts of educational psychologists to explore this area have been strongly reenforced by recent activities of some pioneering social psychologists, e.g., Krech and Crutchfield (27). In their text, written from an orthodox field-theoretical position, they indicated how configurationism offers a basis for eliminating racism, industrial conflict, and war—the three main areas in which undemocratic behavior dominates. Their application of the holistic or organismic conception to the control of group prejudice was summarized in the following principles and recommendations:

1. The over-all content of the child's education must be carefully synchronized with the objectives of teaching for democracy;
2. The educational program must be carried out under appropriate general conditions;

3. A school program must enlist the support of the children's parents;
4. Specific intercultural education must avoid emphasizing or creating differences, e.g., "to ask a Mexican child to report on the culture of the Chinese and a Protestant child on the religious practices of the Jews would be more effective than to ask the Mexican child to come dressed to school in *his* native costume or to ask the Chinese child to tell the other children how to prepare 'bird's nest soup'";
5. Education for democracy must include training in the technics of democracy.

Similarly, Vaughan's less systematic but more comprehensive text (46) was built on the related convictions that "we can create the kind of society we want for the satisfaction of our needs if we plan our institutional arrangements to accord with what we already know about human values" and that "democracy is probably the best system for promoting human happiness" because it best meets the mental hygiene ideals of mature and independent thinking. This attractive thesis is presumably correct in the long run and in a more fully developed democratic world order, but the possibility that non- or even anti-democratic systems may yield less short-term frustration for a majority in a certain growth phase has not been either logically or empirically excluded; indeed, their appearance would otherwise pose a profounder psychological riddle than is already the case.

Two articles by Hopkins (25, 26) were directed to educators as the key people for meeting the dual challenge implied in the critical world situation and the newest knowledge of human behavior. The (a) authoritarian, (b) revolt, and (c) cooperative technics have all been tested in personal relations, but the last procedure is the only one consistent with democratic wholeness. Three great institutions—the school, the church, and the economic system—have so refined their controls over conduct in terms of power (the dinosaur model) that man is threatened with oblivion unless better differentiated "creodont" ideas are vigorously espoused (the term comes from man's presumptive mammalian predecessor in the Mesozoic era).

A modest illustration of what this orientation requires appeared in Spalding's (42) interpretation of educational leadership as helping a group define what it ought to want, rebuilding its sense of what is important, and finding adequate means of realizing its new desires. In a similar vein, Golden (19) offered a semiofficial union labor program of six democratic prerequisites for educational policy: (a) extension of educational opportunity; (b) extension of democratic control; (c) honest dealing with all sides of current issues; (d) training in skilled democratic action; (e) education for work; and (f) peace education. Representative of a number of small but influential groups who seek to swing all American cultural development in the general direction just outlined is the New Century Fellowship (31). A parallel movement in Great Britain appeared in the commitment of Sir Stafford Cripps (10), influential figure in the Labor

Cabinet, to the view that "democracy is the practical application of Christian teaching to the governance of society."

A novel conceptual development of the doctrine of human equality as central to the idea and ideal of democracy was presented in a volume by Myers (30). Horace Kallen once spoke of "the parity of the different" in a cooperative commonwealth, but Myers apparently goes further and literally argues that since every personality is basically of infinite worth and infinity does not admit of degrees of more or less, then every man is equal to every other in ultimate value on the principle that $\infty = \infty$. The implied mandate to create a world society based on this fact of human brotherhood was also stressed by Pink (36) and Bahm (3) who insisted that fraternity is inherent in democracy because without it the will of individuals to surpass and subordinate each other would become dominant.

Between such elevated approaches to the problem and the practical recommendations for securing mutual respect of a writer like Haas (21) there is an impressive gap. Wilcox (47) asserted that while all men may be equal, they are not *comparable*, and that therefore differentiated training appropriate to ability is the democratic way of furthering excellence as it confirms the right of each person to attain his deserved status. Taylor (44) claimed that from the individual viewpoint, democracy is the way for every person to be his best; from the social standpoint, it is cooperative self-realization; from the cosmic outlook, it is sharing in creative evolution; in sum, it is the most progressive living. The economist Schumpeter (40) appeared to be thinking in this spirit when he declared that "a socialist form of society will inevitably emerge from an equally inevitable decomposition of capitalist society."

The need for more authentic cooperative psychologies and institutions as the moral basis for democracy was stressed by Guinness (20). He maintained that competitive independence is a distortion of the democratic principle since it evokes universal fear and insecurity, i.e., a pervasive form of undiagnosed mental illness has resulted from the excessive desire to get ahead and not be registered as inferior by others. War then becomes an extreme expression of the concern not to be outdone in the contest for power and prestige. An important recognition of this basic thesis appeared in several dozen papers contributed to the two-volume *Debate Handbook on World Government* issued by the National University Extension Association under the editorship of Bower Aly (1). The position most strongly championed was that the federal solution which has been so effective in the United States and some other nations in maintaining internal peace is also adequate to ensure it on a planetary basis. The familiar psychological barriers to the acceptance of this model on a final grand scale are construed as surmountable via discussion.

In de Jouvenel's (11) essay appeared a keen statement of some of the difficulties attending political education for mature democratic conduct.

Citing prohibition and the black market as instances, he held that both French and American behavior frequently reveal "the people versus the people" i.e., the people's decisions and the people's representatives are resented by the people as a tyranny and the sovereign in effect revolts against the sovereign. To avoid this dual mentality, de Jouvenel recommended local self-government as providing the best occasion for testing each citizen's opinions against reality. The psychological realism emphasized above also appeared in Hollister's (24) dissertation, *Government and the Arts of Obedience*, which seeks to bring Montesquieu up to date by relating the art of governing to group attitudes toward government, i.e., the social contexts of authority.

Data from School and Teaching Situations

One of the major units in the large Educational Foundations (38) project at Teachers College, Columbia University—probably since 1934 the largest teacher-training course in America—has been concerned with specifying the distinctive traits of a democratic character or personality. Of the many features which may be inventoried, prominence was given to the fact that the democrat bases his decisions not solely on the ideal as he sees it, but upon what the people of his groups (large or small) will support, i.e., he trusts the people even when he differs with them. Sample propositions recurrently submitted to group analysis and discussion for determination as to essential truth or falsehood are the following:

1. Democracy cannot be *given* to anyone; it must always be *claimed* by those who are to enjoy it.
2. If there were assured economic abundance for all, there would be no problem of democracy.
3. Effective, responsible participation in shaping the policies we live by in our groups, small or large, is the *sine qua non* of democratic living.
4. Everyone should be a leader and no one should be trained to *follow* in a democratic society.
5. Democracy and "enlightened selfishness" are mutually exclusive.
6. Democracy assumes a basic friendliness and brotherhood; without these it cannot be.

One of the publications of the Horace Mann-Lincoln Institute of School Experimentation (43) presented in great detail its version of a curriculum which is in every respect directed toward the development of democratic values. For example, under the general objective of making and enforcing laws is the specific one of taking responsibility in making and changing them; this goal is then presumably reached by graded and varied activities appropriate to early childhood, later childhood, youth, and adulthood, respectively. From reaching family agreements about playtime to discussing proposed changes to harmonize divorce laws in various jurisdictions, the learner ideally progresses step by step in understanding and capacity to act in accordance with democratic principles.

The Citizenship Education Study in the Detroit Public Schools has issued a progress report prepared by Dimond (13, 14). In common with other inquiries, this has shown that pupils are limited in their abilities to express ideas about the meaning of democracy and by their tendency to resort to memorized phrases or to incomplete ideas; they also reveal a disposition to place more emphasis on rights than responsibilities. One of the products of this program was a pamphlet on problem solving with special application to controlled thinking about social situations, a teaching or learning aid which is a model of clarity and pedagogical effectiveness.

Hartmann (23) used an individual free association test with ten boys and ten girls from each of the twelve grades of a small public school in upstate New York. Each youngster was asked, "What is the *first* thing you think about when you hear the word 'democracy'?" Not until the ninth grade was every pupil able to supply some significant response. As was found in Putnam's (37) study of fifth-grade students, rights and privileges are emphasized; duties and responsibilities are normally incorporated in the concept only after teacher intervention. Fifty men and fifty women from the same community were interrogated in the same way. The most frequent response terms for pupils and adults combined appeared in this descending order: freedom, government, free, United States, America, president, peace, people, vote, liberty, war, equality, religion (or church), self-government. The prevailing central idea is that democracy is a social system with a certain minimum of conventional personal freedoms, and that political structure and functioning are the main components.

The common lack of any rich ideational content to the notion of democracy here again confirmed for the general populace also appears in the case of more select personalities such as those recruited by the Office of Strategic Services (29) for special duties overseas during the war. The reporter, Henry Murray, expressed surprise at the rarity of motives for engaging in dangerous operations clearly traceable to any specific ideology; e.g., only 11 percent of these subjects mentioned the fight for democracy and peace as one of their goals as contrasted with the 30 percent who merely wanted "to do the job" (a generalized closure phenomenon) without specifying its ultimate meaning. Perhaps this proportion is in part attributable to certain inherent incompatibilities between democracy and war and the fact that most people may not as yet consciously have identified democratic behavior with consistently peaceful conduct.

Public opinion and propaganda specialists like Doob (15) have continued to be perplexed by the difficulties of determining what the community as a whole really wants. "Public opinion is not the decisive factor in all situations and cannot be. In general, people are listened to when they are determined to be heard, i.e., when they feel a crisis is at hand and they themselves are personally involved." Another exponent of this school of thought is Lasswell (28), who has recently formulated his social-anxiety hypothesis to account for undemocratic behavior. Social anxiety, defined

as acute and chronic over-concern for the deference responses of others, is incompatible with full democracy. Men can be free only when they are free from this psychological burden. "So long as dependency demands are generated in the lives of men, the masses will force themselves upon potential tyrants, even tho at first glance it looks as tho the tyrants are forcing themselves upon the masses." This leads to the conclusion that democratic characteristics have a durable positive image of the potentialities of human nature; psychiatrically, they can develop only in those who esteem themselves enough to esteem others.

Indicative of a reawakened interest in the effect of certain vocations upon the nature of those engaged in them was the work of Baumgarten in Switzerland (4). She cited case study materials revealing the danger to school administrators, officials, managers, and bureaucrats generally of having their own thought processes suffer corruption from prolonged and unchallenged exercise of power over others. Hartmann^o (22) reported that 84 percent of a sample of experienced classroom teachers felt they had become more democratically inclined since they followed that career; twenty-six other personality or behavioral trait changes were also considered by the subjects to have occurred generally in a favorable direction. It would be desirable to have this gratifying picture checked by less preliminary or exploratory procedures.

Brueckner (6) stated belief that there are three main processes for making democracy more meaningful to school children: "(a) learning thru direct participation in group activities; (b) learning thru informal free observation of community life; and (c) learning thru the directed study and thoughtful consideration of various aspects of the process of democratic cooperation." The last feature is the one usually neglected by the classroom which Garrison (18) claimed would readily become a miniature democracy *if* the teaching staff erased its inconsistencies and confusions, *if* control boards would adopt policies in the light of their ultimate effect upon the classroom, and *if* pupils always took an active part in reaching conclusions graded to their understanding. Secunda (41) assumed that the development of keen interest in politics is a needful democratic objective as well as the translation of religious teachings into civic behavior—both areas in which extraordinary friction has historically been generated. Bowman (5) analyzed the twenty-five-year-old history of the United Parents Association of New York City to show that the casual, informal integration of personalities and interests is the germ of democratic unity and that subsequent organizational growth and achievement result in part from people's acquaintance with each other's needs. This latter is an indispensable basis for concerted action.

Critiques of current national customs appeared in a volume by Dickens (12) who declared there should be a drastic revision of the rules of procedure and the committee systems of most of our policy-determining groups to ensure more genuinely democratic group discussions and more sensitive

responsiveness to popular attitudes. Carman (8) took an inventory of American democracy and found its greatest flaw to be the prominence of "materialistic acquisitiveness." Commenting on the emergence of the paradoxical term, totalitarian democracy, Byington (7) observed that neither democracy nor totalitarianism can be pure or absolute, but each has something of the other, e.g., not all people bow to state control, neither do they participate 100 percent in such presumably democratic procedures as voting.

Experimental Approaches

The most ambitious and probably most significant research in this domain during the period covered was the University of Miami (Florida) field experiment in democratic, action-centered education ("DAC") with Peters (35) as coordinator. His experimental teachers were instructors with only such prior training for the project as randomly selected good teachers would have. The study itself was conducted within the unmodified administrative framework of present-day city school systems. Thirty-five classes in senior high-school American history, civics, sociology, and psychology were taught for two years with the key objective of training for citizenship. Content was pupil-chosen and development planned in vertical units with emphasis on individual student responsibility for immediate and ultimate *civic* action; the teachers literally took a back seat, obtaining recognition and the right to speak from the pupil chairman in the same manner as any class member. The coordinator issued numerous bulletins to both teachers and pupils in which instructional technics for achieving improvement in personal and group behavior were outlined, all grounded on the belief that America is not yet a democracy, but could become one. Maintaining the contrast between the matched E and C groups was imperilled by the double temptation of the experimental teachers to slip back toward conventional procedures and when they taught control classes to brighten their procedure with the action pattern. The E classes presumably spent at least half of their time upon the clarification of convictions, valuations, ideals, progress, and habits required to build democratic personality and culture with themselves as central agents in the process, i.e., learning how to live in terms of social service. A steady effort went on to achieve conversion in thought and practice to this position.

That the venture was at least moderately successful in reaching its goals was evidenced by the comparison measures. In scholarship (as revealed by the Cooperative American History Test scores) and interpretation, the E groups exceeded the C in both the first and second years, the gain progressing as the scheme gradually took full effect. In a separate social issues device, all E groups exceeded all C's in every school both years—"a unanimity rarely found in educational experimentation." Nonstatistical evidence was even more dramatically in favor of the hypothesis, e.g., a white civics class made a gift to the Negroes in the community, and social-

ized motivation was so high that a special bulletin on how to avoid premature disillusionment had to be issued! Peters reported that the fairly radical break with pedagogical custom here made has been amply justified by the consequences. With this judgment of the data the reviewer agrees, altho the problem of the absolute small but fully reliable differences in scores raises many practical questions as to whether such minor relative advantages make the game worth the candle. Presumably one must remain content with demonstrable progress toward desirable ends by a cumulative series of small steps, even tho all this requires enormous and disproportionate expenditures of energy on the part of devoted prophets and their few disciples.

A much less extensive analog to the foregoing adventure in the secondary field was undertaken on the elementary level by Ojemann and Yarrow (32). They developed four situation tests for use in Grades IV, V, and VI, based on the principle that respect for human personality in behavioral terms means consideration for other individuals. In Situation I, pupils in council voted on a real issue devoid of reward to them and gave their reasons for voting as they did; the most democratic score went for taking into account "individual differences and variations in circumstances." Situation II involved leaving an art room in readiness for the use of a later class on an optional basis; Situation III involved the amount of compliance with pupil council decisions and fulfillment of accepted duties; Situation IV involved plans for a class picnic or party in terms of maximum consultation and assignment of responsibilities. Analyses of responses showed that the children had not achieved an integration between the democratic *motives* they fundamentally possessed and the undemocratic *methods* they actually employed. The similarity of this demonstrated relationship to much familiar adult behavior is patent.

An Appraisal of the Trend

The picture which emerges from this inspection of a qualitatively highly varied collection of writings is that there is a fair but not substantial amount of critical and creative activity in this presumably objectively vital professional area. Much of the available material reflects repetitious verbalisms, hackneyed notions, and pathetically trivial employment of the thought processes. However, there seem to be perceptible successful movements toward (a) greater specification from the characterological standpoint of the earmarks of democratic behavior, (b) further differentiations within social-science literature of just what a full or developed democracy requires in order to be such, (c) some effort to "define" the supporting cultural and autobiographical conditions for the development of the democratic personality, and (d) a few field studies describing active attempts to democratize the educative process at least within the narrower confines of the usual classroom. The historic and one-sided endeavor to cure the faults of an immature democracy by adding more democracy continues,

but there is a shift in emphasis toward a search for mutually supporting and constructive relations between all members and institutions in the community. What is still lacking is a truly effective psycho-technology for coping with perennial or recurrent conflict or crisis situations, or better, preventing them from arising by altering the ground in which such figural events occur. Perhaps the research enterprises of the decade to come will give more illuminating answers than have so far appeared.

Bibliography

1. ALY, BOWER, editor. *World Organization*. Committee on Debate Materials and Interstate Corporation, National University Extension Association. Vols. I and II. Columbia, Missouri: Lucas Brothers, 1948. 440 p.
2. AMERICAN EDUCATIONAL RESEARCH ASSOCIATION. *Improving Educational Research*. 1948 Official Report. Washington, D. C.: the Association, a department of National Education Association, 1948. 224 p.
3. BAHM, ARCHIE J. "Democracy Defined." *School and Society* 66: 135-38; August 23, 1947.
4. BAUMGARTEN, FRANZISKA. *Die Psychologie der Menschenbehandlung in Betrieben*. Zürich: Rascher Verlag, 1946. 304 p.
5. BOWMAN, LEROY. "Democracy as Organizational Growth and Achievement." *Journal of Educational Sociology* 20: 429-38; March 1947.
6. BRUECKNER, LEO J. "Learning the Meaning of Democracy Through Participation, Observation, and Study." *National Elementary Principal* 27: 39-43; June 1948.
7. BYINGTON, STEVEN T. "Totalitarian Democracy." *Christian Century* 63: 991; August 14, 1946.
8. CARMAN, HARRY J. "An Inventory of American Democracy." *Vital Speeches* 13: 653-57; August 15, 1947.
9. COHEN, FELIX S. "Science and Politics in Plans for Puerto Rico." *The Journal of Social Issues* 3: 6-18; Fall 1947.
10. CRIPPS, SIR RICHARD STAFFORD. *Towards Christian Democracy*. New York: Philosophical Library, 1946. 101 p.
11. DE JOUVENEL, BERTRAND. "The People Versus the People." *Human Events* 4: 1-4; June 11, 1947.
12. DICKENS, MILTON. "Discussion, Democracy, and Dictatorship." *Quarterly Journal of Speech* 33: 151-58; April 1947.
13. DIMOND, STANLEY E. *Problem Solving*. Detroit 2: Citizenship Education Study, January 5, 1948. 436 Merrick.
14. DIMOND, STANLEY E. *Progress Report*. Detroit 2: Citizenship Education Study, November 1947. 436 Merrick.
15. DOOB, LEONARD W. *Public Opinion and Propaganda*. New York: Henry Holt and Company, 1948. 600 p.
16. EDWARDS, NEWTON and RICHEY, HERMAN G. *The School in the American Social Order*. Boston: Houghton Mifflin Company, 1947. 880 p.
17. GALLUP, GEORGE. "U. S., Britain, Switzerland Rank High—Russia and Spain Get Low Vote." *Public Opinion News Service*; May 4, 1947.
18. GARRISON, HARRY A. "The Classroom—A Miniature Democracy." *Nation's Schools* 39: 42-43; January 1947.
19. GOLDEN, CLINTON S. "Democratic Pre-Requisite of Educational Policy." *Labor and Nation* 1: 10-13; June 1946.
20. GUINNESS, RALPH B. "A Moral and Psychological Basis for Democracy and Peace." *Social Studies* 37: 53-56; February 1946.
21. HAAS, FRANCIS R. "Practicing Democratic Values." *Pennsylvania School Journal* 75:9; September 1946.
22. HARTMANN, GEORGE W. "Effects of Teaching on Teachers." *Phi Delta Kappan* 29: 178-83; December 1947.
23. HARTMANN, GEORGE W. "Studies in the Development of Democratic Concepts and Behavior." *American Psychologist* 2: 336, August 1947.

24. HOLLISTER, WILLIAM W. *Government and the Arts of Obedience*. New York: King's Crown Press, 1948. 139 p.
25. HOPKINS, L. THOMAS. "Democratic Education: The Hope of the World." *Teachers College Record* 49: 501-10; May 1948.
26. HOPKINS, L. THOMAS. "The Need Is Great, the Time Is Now." *Teachers College Record* 50: 83-92; November 1948.
27. KRECH, DAVID AND CRUTCHFIELD, RICHARD S. *Theory and Problems of Social Psychology*. New York: McGraw-Hill Book Company, 1948. 639 p.
28. LASSWELL, HAROLD D. *Power and Personality*. New York: W. W. Norton and Company, 1948. 262 p.
29. MURRAY, HENRY. *Assessment of Men*. New York: Rinehart and Company, 1948. 541 p.
30. MYERS, HENRY ALONZO. *Are Men Equal?* New York: G. P. Putnam's Sons, 1945. 188 p.
31. NEW CENTURY FELLOWSHIP. *Draft of Beginning Statement*. Washington, D. C.: the Fellowship, December 1947. 2403 Observatory Place, N. W. 16 p.
32. OJEMANN, RALPH H. AND YARROW, LEON. "An Experimental Study of the Development of Democratic Behavior." *Proceedings of the Iowa Academy of Science* 51: 389-95. 1944.
33. PARKE, MARY BOYNTON. "Foundations for Democracy in the Home." *Religious Education* 41: 153-56; May 1946.
34. PAYNE, ROGER AND HARTMANN, GEORGE W. *Democratic Socialism*. New York: Three Arrows Press, 1948. 128 p.
35. PETERS, CHARLES C. *Teaching High School History and Social Studies for Citizenship Training*. Coral Gables, Florida: University of Miami, 1948. 192 p.
36. PINK, M. ALDERTON. *The Challenge to Democracy*. London: Faber and Faber, Limited, 1946. 118 p.
37. PUTNAM, RUTH A. "Democracy: Fifth Grade Version." *Elementary English* 24: 40-42; January 1947.
38. RAUP, R. BRUCE; CLARK, HAROLD F.; AND JOHNSON, F. ERNEST. *Syllabus for Educational Foundations*. New York: Teachers College, Columbia University, 1944. 24 p.
39. RONIN, S. "All Peoples Are Equal in USSR." *USSR Information Bulletin* 8: 660-62; November 3, 1948.
40. SCHUMPETER, JOSEPH A. *Capitalism, Socialism, and Democracy*. New York: Harper and Brothers, 1942. 406 p.
41. SECUNDA, MARION. "Light on Teaching Democracy." *Scholastic* 49: 14T; January 13, 1947.
42. SPALDING, WILLARD B. "The Frontiers of Educational Leadership." *Progressive Education* 25: 133-37; May 1948.
43. STRATEMEYER, FLORENCE B.; FORKNER, HAMDEN L.; AND MCKIM, MARGARET G. *Developing a Curriculum for Modern Living*. New York: Teachers College, Columbia University, 1947. 558 p.
44. TAYLOR, WILLIAM S. "The Essence of Democracy." *Journal of Social Psychology* 22: 203-208; November 1945.
45. UNION OF SOVIET SOCIALIST REPUBLICS. *Constitution of the Union of Soviet Socialist Republics*. Washington, D. C.: Embassy of the Union of Soviet Socialist Republics, December 1947. 40 p.
46. VAUGHAN, WAYLAND F. *Social Psychology*. New York: Odyssey Press, 1948. 956 p.
47. WILCOX, JOHN. "Excellence and Democracy." *School and Society* 63: 217-20; March 30, 1946.

CHAPTER III

Economic and Cultural Differentials in American Life

EUGENE S. LAWLER and FRANCES L. LAWLER

IN SPITE of the fact that the topic of this chapter has not been treated as such in previous numbers of the REVIEW, major attention is given herein to references appearing during the three-year period covered by this issue. Some reference is made to past issues of the REVIEW devoted to similar topics, as well as to certain literary works which, while not scientific in a literal sense, shed light on the subject. It is impossible in a short summary to do more than suggest and point to sources of information. There is much material available in limited areas, but few comprehensive studies have been made. Only references that are reasonably available have been included. For that reason several doctoral dissertations not in print have been omitted. Over 100 additional items were read and included in a bibliography which is available to anyone interested.

A General Study of Inequalities

The Report of the President's Committee on Civil Rights (51) was an outstanding piece of work. The report covered a broad field and many complex and controversial matters in American life. It emphasized the fact that the protection of civil rights is a national problem which affects everyone. The Committee focused its attention upon the need to guarantee the same rights to every person regardless of who he is, where he lives, or what his racial, religious, or national origins are. The report cited examples of inequalities existing in housing, employment, citizenship rights, education, and health, among many others. According to the report, the American heritage of freedom and equality has given the nation prestige and a strong feeling of national pride at home. But pride is no substitute for steady and honest performance, and the record shows that the gulf between ideals and practice has been wide.

Educational Inequalities

One of the original concepts of free public education in this country was that by virtue of its being free it would reach directly the total population. Later, it was made compulsory to give added assurance to that end. The facts reveal, however, that the principle of equal opportunity is violated at every level of our educational system. A special issue of *Survey Graphic* (1) showed many educational shortcomings, many areas of controversy and consideration, and many inequalities in schooling afforded children of different family and community economic levels.

According to this issue Americans like to speak of "our system of education." Actually, there are as many systems as states, territories, and dependencies. Each of these systems is profoundly affected by the economic and social pluses and minuses of the area it serves and from which it draws its support; by the make-up of the population, the prevailing ways of livelihood; by beliefs, practices, prejudices, means of transportation and communication, and a host of other factors. Local control of education is a firmly rooted American tradition. On this account the schools of a single system may differ widely from city to city, from district to district.

In the REVIEW for February 1946, Edwards presented a chapter on the problems of equality of opportunity in education. Since that chapter and bibliography appeared, *Unfinished Business in American Education* (37), a graphic summary of the earlier mimeographed report by Norton and Lawler (36) has appeared. Norton and Mort (38) have followed this with a sampling study which shows the trend of expenditures in high, low, and median communities in each state and hence the tremendous inequalities in expenditures which still remain. Hughes and Lancelot (25) rated the forty-eight states and the nations of the world as to the excellence of their educational systems. Their rating depends on the assumption that the excellence of an educational system can be measured by the extent to which the population attends school, which is only partially true.

The President's Commission on Higher Education (50) stated that the first condition toward equality of opportunity for a college education can only be satisfied when every qualified young person, irrespective of race, creed, color, sex, national origin, is assured of the opportunity for a good high-school education in an accredited institution. According to the report, a third of our population has the ability to complete advanced liberal arts or professional training. Volume II of this report discussed the barriers to equal opportunity and the consequences of this inequality.

Havighurst (23) has shown the cultural motivations of American lower-middle-class and working-class people in his discussions of the social implications of the report of the President's Commission on Higher Education. His studies showed the importance of motivation, as distinguished from financial support, in determining whether a young person shall go to college. His studies indicated that the Commission's goals for higher education can only be approached thru a change in the cultural motivations of American lower-middle-class and working-class people, which will cause them to value college education more highly than they do today.

Jacobson (26) and Ewing (19) reported on the need of federal aid to education and listed discriminations against minority groups in the matters of equipment, well-qualified teachers, and housing. They brought out the fact that free education is far from free when the cost of books, lunches, and other items, and the effect of these costs on a low-income family are considered. Figures are cited comparing years of school with rent paid, and showing that the lower the rent, the fewer grades of school provided by the community.

Inequalities Due to Family Income

Several studies on recent trends in income and spending for families have been made. The *Studies in Income and Wealth* (35) was highly technical. It made international as well as national comparisons. Part IV of this study dealt with the savings and income distribution of different population groups in the United States. The bulletin from the United States Department of Agriculture (47), "How Families Use Their Incomes," brought together descriptive material on the economic position of families in this country. It showed patterns of spending and saving by income level and by regions for food, clothing, housing, medical care, and other needs and wants. It dealt also with the circumstances that make important differences in family spending patterns. The *Statistical Abstract of the United States* prepared by Department of Commerce (49) presented basic information on population, education, income and expenditures, and family size. This information is basic to all studies on the inequalities of family income and almost all studies dealing with economic inequalities. Dewhurst (14) made an inventory of the productive capacity of the United States and of the needs and tastes of the people. After establishing the broad outlines of the United States economy both past and future, the economists turned to the demand for consumer and capital goods and services. The chapters on housing and minimum standards of living afford some striking contrasts among various groups of the population. An article in *Fortune* (22) gave the high lights of the book in a series of striking graphs and diagrams. By way of contrast the article in *Fortune* (21), "The Farmer Goes to Town," showed one of the great social and economic shifts in American history. While United States farmers as a whole may not be getting rich, since the 27,500,000 farm people who comprise nearly 20 percent of the United States population still receive only 10 percent of the national income, the picture showed a definite change. Advertising, better communication, and easy transportation have all played an important part in changing the picture in the past decade.

Clark (10), thru his work with the Sloan Foundation and other organizations, has been in a position to analyze economic and cultural phenomena thruout this country and make comparisons with other parts of the world. This contribution is provocative and touches almost every economic differential. Clark made the point that our educational system was developed for about 5 percent of the population and for very limited objectives. Now we must design an education for all the people and for a wide variety of purposes.

Since there is so little known about the relation of education to home and family living, there is a good deal of interest in the figures released by the Bureau of the Census (48) showing marital conditions by education, by rent, and by wage and salary. It seems that there is a larger percent of intact homes among the better educated than among those less well educated. However, further study will have to be made in order to give

more accurate interpretation to the figures. The textbook by Edwards and Richey (17) was a history of social and economic forces and their effect on education. The latter half of the book, dealing with contemporary problems, contains considerable material on economic and cultural differentials as they apply to American education.

Minority Groups

It is ironic that the civil emancipation of minorities in the democratic West has generally been accompanied by the emergence of forces designed to oppress them anew. It was not until after Lincoln had issued his Proclamation that Negroes became subject to every conceivable form of legal tyranny. "Pacification" has eventually meant, for the American Indian, his confinement to backwoods reservations. Leighton and Kluckhohn (29) have given an interpretation of facts about a culture and relations of individuals to a culture. The Jews' first real taste of freedom, obtained in America, was followed by an ever-rising tide of anti-Semitism. Carey McWilliams (33) has shown the irony in the fact that organized prejudice has developed on the heels of the most far-reaching economic revolution known to man. He has marshalled considerable evidence to back his theory that the upper classes have been mainly responsible for establishing and perpetuating, out of conscious self-interest, the current pattern of anti-Semitism in America. This fact is borne out by various surveys which show that anti-Semites number 14 percent among those in the high income brackets as against 9 percent for the total population.

Weaver (53) has outlined the steps in making more housing available to all minority groups. He shows the development and perpetuation of racial segregation in housing due to the factor of race prejudice and fear of loss in property values.

Culture has been defined as the individual and mass behavior of the group. What personality is to the individual, culture is to society. The intensity and quality of culture, like a man's character and personality, dominate life and behavior and are the very essence and drama of living society. Wherever different racial stocks come together in society, we find economic, political, and cultural differences. The new concept of race held by sociologists, psychologists, and anthropologists removes much of the false belief in mental and physical inequalities inherent in certain racial stocks. Odum (39) has traced the way in which history and nature have combined to evolve a special regional culture in the South and a special frame of mind. He has analyzed the various levels of culture, the role of religion, the position of women, education, folk music, and art. He discusses the attitude of Negroes and white people, in both the North and the South. The book is the result of years of research and firsthand studies in all parts of the South and in all other regions of the country. An earlier book by Odum and Moore (40) should be read in connection with the previous reference as background.

The sociological importance of race and ethnic groups is not in the fact that the people in America are of varying physical make-up, but in the fact that each folk-group represents a different set of folkways and customs. Whenever different racial stocks come together in society, economic, political, and social strife result. This is the process of cultural development and of folk society. There have been striking examples of this in some of our fiction and movies. Ellen Glasgow's novels portrayed life among the upper classes. The life she wrote about was chiefly among the upper classes—they embodied the goals and values to which other groups aspired. On the other end of the social scale we have a novel such as Lillian Smith's *Strange Fruit* with its set of cultural inequalities. The entire issue of the *American Journal of Sociology* for May 1948, (5) was on the American Family. Articles by outstanding authorities on the regional family pattern in the Northeast; the South; the Middlewest; and the West were presented. There were also articles on the Negro Family; the American-Jewish and Mexican Family, followed by an article by Ogburn on education, income, and family unity. Burgess (6) analyzed the social and cultural changes in the family.

Ashley-Montagu (2) presented chapters on the American Negro and on the Jew as a "race" which are among the best treatments on this subject to be found anywhere. Cohler (11) showed that there is substantial correlation between the socio-economic level and intelligence. He argued that cultural differences invalidate intelligence tests for group comparison and how the economic degradation of one group in a given society reacts unfavorably upon the whole economic structure. Ross (44) dealt with the problem of the racial crisis in American life from 1741 to the present with special emphasis on the FEPC.

Lohman (30) has written a timely book in view of recent emphasis placed on importance of police training by the President's Commission on Civil Rights. The book includes well-documented information on world-wide and neighborhood aspects of human relations and social situations in which tensions occur. The minority problem is approached on a practical and realistic basis. This book is included to show the extent of training programs and the attempt to understand and combat group differences and tensions.

McWilliams (32) and Cooke (13) revealed the effect of segregation of Mexican-American children in southern California. A group of low-income workers of Caucasian ancestry who "invade" a California county or township are likely to be excluded from the economic and social opportunities of that region. Employment may be restricted for them generation after generation. Churches may not be open to their worship, city parks and even public schools will not welcome them. In 1947 the California legislature dropped from the Educational Code of the state Sections 8003 and 8004, which had been the basis for the segregation of Indians and Mongolians, thus making it illegal to separate any ethnic group in the state's public schools. In January 1947, *The Survey Graphic*

issued a special edition (45) giving a fresh appraisal of what has been called an enduring problem. The number does more than trace its roots in our history and tally up its cost in money and life. In surveying advances and setbacks in our generation, it delineates how and where citizens and communities have taken hold and can work on the problem. Hicks (24) has told of life in a small town over a period of years. Blegen (4) reconstructed for the reader a segment of the American past which makes a substantial contribution to research in American cultural and social history. The two books portray quite different regional cultures and time groups but have much in common. While these two books are not scientific research studies, they give the suggestive background material for such studies. It seems wise to include Johnson's article (27) on "National Organizations in the Field of Race Relations." He has classified seventy-five organizations according to their area of major interest in this field. Almost all of these organizations are making comprehensive studies and provide source material for scientific research.

In 1914 and again in 1929 *The Annals* reviewed the position of women in American Life. The 1947 volume (54) made a systematic survey of how alterations in economic patterns, in social and political institutions, and, still more, in cultural mores, are affecting the lives of women.

Religion

It is difficult to understand human society without knowing the role of religion in its development. It may well be true, therefore, that next to the culture itself religion affords as nearly a universal approach to the cataloging of the elements of society as almost any other societal phenomenon or trait. It has conditioned the cultural patterns of early peoples and it has fixed the fundamental mores and behavior of the moderns.

Pope (42) summarized the class composition of religious bodies according to class structure. He stated that while there is no clearly defined national pattern of social classes, except as one may arbitrarily construct them in terms of income classes or other general criteria, we do have degrees and modes of stratification varying considerably by region, by size of town, and ethnic bases of the community. He found that in a very general sense, the churches are associated especially with the middle classes. He concluded that there is very little evidence that religion will operate in the near future to change American class structure appreciably. Cantril (7) in a study made earlier indicated Protestantism had a large representation from the lower class and Catholicism had more middle class members. He found that proportion of Protestants to Catholics rises as one moves up the educational scale. Outside the South the percent of college graduates is almost twice as high for Protestants as for Catholics. Further, those who are not church members (whether Protestant or Catholic) are found in increasing numbers as either income or education decreases.

Variations in Natural Resources

The University of North Carolina's social-studies program has led in the concept of regionalism as a useful tool for research and planning. Scores of economic, cultural, and geographic indexes were used to establish the fact that certain states formed themselves into groupings in which member states were more like each other than like states not of that group.

Odum (39, 40) stated that by grouping of states it is possible to constitute relatively homogeneous areas and to determine ways to deal with problems, where a single state is often too small an area in which to find adequate solutions. The 1948 Yearbook of the Association for Supervision and Curriculum Development (3) showed how society rests on its natural resources and how thru ill-directed efforts society can destroy itself. It showed how education is in the midst of building a new culture and the effect it will have upon the common people of the land. The study reflects the growing emphasis in American life which considers the close relation between man and his environment. It cited the many studies made in communities and the effect upon the community life and points the way to greater use in the future. Vogt (52) and Pearson and Harper (41) presented in great detail the differentials in welfare of the nations of the world and the ecologic reasons for these differentials. *The Survey Graphic* (28) has presented a picture of the world food standards and the effect it will have upon America.

Intergroup Education

Cook (12) has written a chapter on Intergroup Education with an extensive bibliography including many references which otherwise might be included in this REVIEW. The references pertaining to the school's role and to so-called majority-minority group relations are especially valuable in explaining what can be done to combat prejudice. Long and Johnson (31) have shown how prejudice can affect the economic life of a community and impose differentials and restrictions in housing.

Chatto and Halligan (8) have written an account of the way a city has used its schools to build tolerance and understanding relations in children and adults in a city that has added to an originally Protestant and New England stock representatives from every country in Europe and many diverse religious faiths. The definition as given in the chapter on "Problems of Intercultural Education" in the February 1946 issue of the REVIEW is that intercultural education is education to improve understanding and practices of good human relations between individuals of many culture groups. Economic and social patterns vitally affect relations among the varied groups. There is need to know more about the attitudes of minority groups toward other minorities, and toward members of their own minority groups.

Health

Medical costs have always taken a large share of the income of people of moderate and low incomes. The graphs on pages 42-46 of the Department of Agriculture Publication (47) show types and amount of medical care for families in various regions. Exton (20) outlined a ten-year program for raising health levels. The article is a summary of testimony on need of focusing attention on school-health problems. The statistics show how many children suffer from defective vision and dental defects apparently due to insufficient family income. Malmberg (34) has made a survey of health and medical services in the U. S. and makes a plea for more and better services. An earlier study by Emerson (18) gave a blueprint for a healthier nation. An exhaustive analysis has been made of the states and segregation of administrative units on the basis of population, area, and per capita income.

Education as a Determining Factor

Clark (9) pointed out how crucial a factor education is in determining the level of income. He has found that without exception every nation having a high educational standard has a high income and, consequently, a higher standard of living without regard to the natural resources of the country. Reeves (43) found that low income, high birth rate, and low ratio of workers make education particularly burdensome in rural areas. He has shown how migration to the city and to higher paying jobs has had its effect on the ability to support schools. He has used the T. V. A. as an example of how the total resources of the community can be used in developing an education program based on needs. This is borne out in the reference to the yearbook *Large Was Our Bounty* (3).

Eby (15, 16) has shown how labor looks at education. Both articles point out the need to have inequalities stamped out and the principle of public education realized universally. Children of minority groups have even greater need of education than children in majority groups because life at best is more difficult for them. He has shown the need for more planning of the economic health of the community, state, and nation and summarizes the inequalities now existing. Starr (46) enumerated the forces that pervert and thwart education and showed the organized opposition by religious and economic groups to adequate financing of schools and how depressed economic status denies the privilege of higher education to many youths.

Bibliography

1. AMIDON, BEULAH, editor. "Education for Our Time." *Survey Graphic* 36: 565-664; November 1947.
2. ASHLEY-MONTAGU, MONTAGUE F. *Man's Most Dangerous Myth: The Fallacy of Race*. New York: Columbia University Press, 1945. 304 p.
3. ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT. *Large Was Our Bounty: Natural Resources and the Schools*. 1948 Yearbook. Washington, D. C.: the Association, a department of National Education Association, 1948. 216 p.
4. BLEGEN, THEODORE CHRISTIAN. *Grass Roots History*. Minneapolis: The University of Minnesota Press, 1947. 266 p.
5. BLUMER, HERBERT, editor. "The American Family." *American Journal of Sociology* 53: 417-519; May 1948.
6. BURGESS, ERNEST W. "The Family and Sociological Research." *Social Forces* 26: 1-6; October 1947.
7. CANTRIL, HADLEY. "Educational and Economic Composition of Religious Groups." *American Journal of Sociology* 49: 574-79; March 1943.
8. CHATTO, CLARENCE I. AND HALLIGAN, ALICE L. *The Story of the Springfield Plan*. New York: Barnes and Noble, 1945. 201 p.
9. CLARK, HAROLD F. *Education Steps Up Living Standards*. Washington, D. C.: Committee on Education, Chamber of Commerce of the U. S., 1945. 20 p.
10. CLARK, HAROLD F. "Five Talents." *Official Report*. American Association of School Administrators. Washington, D. C.: the Association, a department of National Education Association, 1947. p. 81-90.
11. COHLER, MILTON J. "What Can We Do About Race?" *American School Board Journal* 113: 29-30; October 1946.
12. COOK, LLOYD ALLEN. "Intergroup Education." *Review of Educational Research* 17: 266-78; October 1947.
13. COOKE, W. HENRY. "The Segregation of Mexican-American School Children in Southern California." *School and Society* 67: 417-21; June 5, 1948.
14. DEWHURST, J. FREDERIC. *American Needs and Resources*. New York: Twentieth Century Fund, 1947. 812 p.
15. EBY, KERMIT. "Discrimination in Education." *American School Board Journal* 115: 21-22, 74; November 1947.
16. EBY, KERMIT. "Education and Our American Economy." *American School Board Journal* 109: 19-20; October 1944.
17. EDWARDS, NEWTON and RICHEY, HERMAN G. *The School in The American Social Order*. Boston: Houghton Mifflin Company, 1947. 880 p.
18. EMERSON, HAVEN. *Local Health Units for The Nation*. New York: Commonwealth Fund, Division of Publications, 1945. 333 p.
19. EWING, OSCAR R. "Education—An Investment in People." *Official Report*. American Association of School Administrators. Washington, D. C.: the Association, a department of National Education Association, 1948. p. 88-94.
20. EXTON, ELAINE. "The Health of School-Age Children." *American School Board Journal* 116: 51-56; June 1948.
21. FORTUNE. "The Farmer Goes to Town and Brings Home Most of its Amenities." *Fortune*, 36: 89-97; October 1947.
22. FORTUNE. "How Well Can Americans Live?" *Fortune* 35: 124-32; May 1947.
23. HAVICHURST, ROBERT J. "Social Implications of the Report of the President's Commission on Higher Education." *School and Society* 67: 257-61; April 3, 1948.
24. HICKS, GRANVILLE. *Small Town*. New York: The Macmillan Company, 1946. 276 p.
25. HUGHES, RAYMOND M. and LANCELOT, WILLIAM H. *Education: America's Magic*. Ames: Iowa State College Press, 1946. 190 p.
26. JACOBSON, PAUL B. "Education in a Democracy." *Official Report*. American Association of School Administrators. Washington, D. C.: the Association, a department of National Education Association, 1948. p. 78-86.
27. JOHNSON, CHARLES S. "National Organizations in the Field of Race Relations." *Annals of the American Academy of Political and Social Science* 244: 117-27; March 1946.
28. KELLOGG, PAUL; HALL, HELEN; AND BRITT, GEORGE, editors. "Food." *Survey Graphic* 37: 95-185; March 1948.

29. LEIGHTON, DOROTHEA and KLUCKHOHN, CLYDE. *Children of The People; The Navaho Individual and His Development*. Cambridge: Harvard University Press, 1947. 277 p.
30. LOHMAN, JOSEPH D. *The Police and Minority Groups*. Chicago: Chicago Park District, 1947. 133 p.
31. LONG, HERMAN H. and JOHNSON, CHARLES. *People Against Property—Race Restriction Covenants in Housing*. Nashville, Tennessee: Fisk University Press, 1947. 105 p.
32. MCWILLIAMS, CAREY. "Culture and Society in Southern California." *Annals of the American Academy of Political and Social Science* 248: 209-13; November 1946.
33. MCWILLIAMS, CAREY. *A Mask for Privilege: Anti-Semitism in America*. Boston: Little, Brown and Company, 1948. 299 p.
34. MALMBERG, CARL. *140 Million Patients*. New York: Reynal and Hitchcock, 1947. 242 p.
35. NATIONAL BUREAU OF ECONOMIC RESEARCH. Conference on Research in Income and Wealth. *Studies in Income and Wealth*. Vol. 10. New York: the Bureau, 1947. 384 p.
36. NORTON, JOHN K. and LAWLER, EUGENE S. *An Inventory of Public School Expenditures in the United States*. Two volumes. Washington, D. C.: American Council on Education, 1944. 409 p.
37. NORTON, JOHN K. and LAWLER, EUGENE S. *Unfinished Business in American Education*. Washington, D. C.: American Council on Education, 1946. 64 p.
38. NORTON, JOHN K. and MORT, PAUL R. *Still Unfinished, Our Educational Obligations to America's Children*. Washington, D. C.: National Education Association, 1948. 32 p.
39. ODUM, HOWARD W. *The Way of the South*. New York: The Macmillan Company, 1947. 341 p.
40. ODUM, HOWARD W. and MOORE, HARRY E. *American Regionalism*. New York: Henry Holt and Company, 1938. 693 p.
41. PEARSON, FRANK A. and HARPER, FLOYD A. *The World's Hunger*. Ithaca: Cornell University Press, 1945. 90 p.
42. POPE, LISTER. "Religion and Class Structure." *Annals of the American Academy of Political and Social Science* 256: 84-91; March 1948.
43. REEVES, FLOYD W. *Education for Rural America*. Chicago: University of Chicago Press, 1945. 207 p.
44. ROSS, MALCOLM. *All Manner of Men*. New York: Reynal and Hitchcock, 1948. 314 p.
45. SANCTON, THOMAS, editor. "Segregation." *Survey Graphic* 36: 1-128; January 1947.
46. STARR, MARK. *Labor Looks at Education*. Cambridge: Harvard University Press, 1946. 51 p.
47. U. S. DEPARTMENT OF AGRICULTURE. *How Families Use Their Incomes*. (Miscellaneous publication No. 653.) Washington, D. C.: U. S. Government Printing Office, 1948. 64 p.
48. U. S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS. *Population: Education: Educational Attainment by Economic Characteristics and Marital Status*. Washington, D. C.: U. S. Government Printing Office, 1947. 236 p.
49. U. S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS. *Statistical Abstract of the United States*. Washington, D. C.: U. S. Government Printing Office, 1947. p. 1-92; 118-44; 166-218; 265-71.
50. U. S. PRESIDENT'S COMMISSION ON HIGHER EDUCATION. *Higher Education for American Democracy*. New York: Harper and Brothers, 1947. 420 p.
51. U. S. PRESIDENT'S COMMITTEE ON CIVIL RIGHTS. *To Secure These Rights*. New York: Simon and Schuster, 1947. 178 p.
52. VOGT, WILLIAM. *Road to Survival*. New York: William Sloane, Associates, 1948. 335 p.
53. WEAVER, ROBERT C. "Housing in a Democracy." *Annals of the American Academy of Political and Social Science* 244: 95-105; March 1946.
54. YOUNG, LOUISE M., editor. "Women's Opportunities and Responsibilities." *Annals of the American Academy of Political and Social Science* 251: 1-224; May 1947.

CHAPTER IV

Education and the Changing Pattern of Economic Life

HAROLD H. PUNKE

THE economic life of a nation is closely related to the content, support, and administration of its educational program. This chapter summarizes the changing pattern of economic life in the United States as indicated by recent research in its relation to education.

Business Cycles

Among reasons for anxiety regarding boom-and-bust cycles is the increasing scope of the economy affected, and the apparently increasing amplitude of the fluctuations. A summary (2) of theories advanced to explain causes and offer remedies for cycles appeared in selections from recent articles by exponents of the theories. The selections and bibliography should have more than orienting value. A recent effort to devise tools for measuring cycles (11), analyzed numerous time-series data in a technical study of method. Both long-range and short-range fluctuations were considered. Estey (22) gave a clear-cut analysis of theories concerning inventions, agricultural prosperity, monetary controls, savings, overinvestment, and psychological factors, relative to cycles. He indicated weaknesses in each theory, and offered suggestions accordingly. Haberler (33) systematically analyzed cycles, with more extensive coverage than Estey, with more detail on minor variants, and with material concerning World War II.

Jones (40) studied the mature-economy or secular-stagnation theory of cycles. He found nothing in population or technological trends which should decrease economic growth or investment opportunity, as the theory maintains, and concluded that the decrease in such opportunity during the 1930's probably resulted from internecine warfare among business, labor, and government.

A group of papers (44) prepared mainly by economists, bankers, and federal employees, considered the interrelationships of prices, wages, and inflation. Bank credit, financial policy, agricultural policy, business agreements, and debt management received attention. Some recent data were included.

Mills (56) analyzed the interaction of price and production volume, relative to cycles. As a basis for comparisons, he constructed a model or reference cycle. Fluctuations regarding items were measured relative to the model cycle. Relationships in price, volume, and dollar-value of product were shown concerning groups of items and phases of cycles.

Findings were related to buyers' outlays and sellers' returns, regarding both aggregate economic transactions and particular commodities.

A symposium (20) studied the possible role of taxation in curbing inflation. Eighteen contributors reported the results of examining the inflationary potential of our national debt, various kinds of taxes and forced loans, and the experience of foreign countries in curbing inflation thru fiscal means. Tax changes were suggested. They concluded that for taxation to be effective, it must be supplemented by price and wage controls. Another study of taxation and cycles emphasized the vulnerability of a revenue system that is geared closely to national income (43). An analysis was made of factors which may affect national expenditures five years hence, revenues needed for the expenditures, the urge for tax reduction, and ways in which revenue would reflect decreased national income. Federal, state, and local taxes were considered. It was concluded that at current tax rates, a moderately decreased income might result in a deficit of \$10 billion.

Money, Banking, and Finance

Banking, finance, and monetary systems are influential components of modern economy. Thomas (75) described our banking and monetary system, with information on bank operations and analysis of the relationship of money to prices, international trade, and central banking policy. Some of the factual material makes tedious reading. Halm (34) systematically analyzed the role of money in modern economy, integrating monetary theory with economic theory concerning cycles, income, employment, savings, investment, price, and production. He considered the functions of the International Monetary Fund and of the International Bank for Reconstruction and Development.

A careful study of credit operations in financing business (38) traced developments from 1900 to 1940—particularly regarding commercial bank relationships to business enterprises. It sought to determine the pattern of demand for short-term and medium-term credit, especially among manufacturers and traders reflecting heavy demand, and to describe related adaptations made by financial institutions. Attention was given to size of enterprise relative to credit demands, rise of new lending agencies, and the role of government in capital formation and as a lender.

A study of wartime functions of the Federal Reserve System (91) considered its chief purpose to be the aiding of government in mobilizing financial resources so as to secure efficient use of wealth for the war effort. Peacetime functions were not considered as clear-cut, altho controls over the flow of money and use of credit were included. Means by which these controls operated during the war were reviewed.

An analysis of public finance from the standpoint of welfare economics (1) emphasized activities to be fostered by government more than revenues to balance the budget. Changes during the past half century were traced in

taxation, public expenditures, debt, and fiscal relationships of federal, state, and local agencies. Fiscal policies were examined as related to employment, allocation of resources, and distribution of income. A study of the role of state and local finance in the national economy (36) considered three major areas: deficiencies in public services; means of strengthening the fiscal base; over-all budget covering federal, state, and local expenditures. It was concluded that major problems of interrelationship center around shifting financial responsibility, and that strength in national government is not at the expense of smaller units but complementary to them.

Fine (25) examined fiscal policies relative to unemployment, secular stagnation, public-debt limit, and public spending. He concluded that public spending should be residual, rather than determining the major use of resources; and that unemployment due to secular movements should be handled thru long-range public projects, with insurance to provide for short-term unemployment. His basis for differentiating the two types of unemployment is not clear.

Members of a symposium analyzing the Bretton Woods Agreements (37) disagreed regarding their suitability for achieving international stability. They agreed, however, that the International Monetary fund and the International Bank for Reconstruction and Development were not revolutionary innovations, but extensions of developments which have proved fairly successful within individual nations.

Structure and Financing of Business

Owens (60) described the development of business organization from single owners and partnerships thru holding companies and cartels. Co-operatives received some attention. He showed how wartime reliance on government loosens ties to investment banking, how efforts at regulation shift from state to federal government, and how legislative efforts at regulation frequently conflict. He emphasized the attitude of this country as affecting future business organization in the capitalist world. Taylor (74) analyzed business organization, emphasizing the fact that forms of organization at different times are products of the contemporary social order.

Chudson (17) studied corporations in manufacturing, trade, mining, and construction, using the ratio method of balance-sheet analysis. With 1937 as a reference year, he studied possibilities of similarity among corporations regarding inventories, cash balances, accounts receivable, current-asset turnover, and credit use. Variations from one industry to another were noted, and variations by size of corporation and profitability of enterprise.

Thru interviewing business men, Gordon (30) studied leadership in large corporations. He analyzed corporate procedure as organized human activity directed toward common goals, and showed how professional managers react differently from owner-entrepreneurs to pressures from stockholders, labor, purchasers, suppliers, and the public. He concluded

that such influences confuse rather than clarify the goals which business leaders should seek.

Brady (9) analyzed business relationships as a system of power. He maintained that technology underlies production, and that large-scale production demands organization of personnel, plants, finance, materials, markets, and research. As production areas extend they tend to overlap, often leading to cartels. Brady traced growth of cartels in Europe, Japan, and this country, finding much similarity. He found no decline in rate of growth among combinations, found cartel tendencies facilitated by separating management from ownership, found "family blocks" emerging, and found power shifting to heavy industry.

Prices and Price Making

Price levels and controls seem related to inflation. Stigler (70) analyzed pricing technics under hypothetically perfect competition and under monopoly. Under the former he considered demand, costs, and pricing—including wages, as well as pricing by multiple-product corporations. He concluded that price rigidities concerning raw materials, labor, and manufactured goods greatly reduce real competition.

Nourse (59) studied "low-price policy," as basic to competitive private enterprise. He considered areas to which such policy applies, wages as cost and as market, and scientific aids to policy making. He analyzed possibilities of individual businessmen and voluntary associations promoting the general welfare thru farsighted administration of their own affairs, thus pointing to maximum profits along with maximum popular income. He said that centralized decision-making necessitated great moral responsibility, and recommended government restraints on corporations to retain the value of large-scale organization without losing the value of enterprising effort.

In a pricing study Katona (41) interviewed personnel between 1942 and 1944 at 528 firms (largely in apparel, house-furnishings, and foods industries) in or near Chicago. Among pricing changes were direct increases, quality deterioration, reduction in markdowns, and upgrading. He concluded that for effective operation, price control must be used with other measures, and that it must aim at absolute price stability rather than limited increases.

Shepherd (65) analyzed twenty years of price control in agriculture, appraised conditions regarding agricultural prices, and developed a five-point policy for agricultural pricing. The points are (a) forward pricing, to allocate resources; (b) crop storage, to stabilize supplies; (c) crop yield insurance, to offset production variants; (d) direct income payments, to stabilize demand; (e) living-standard guarantees, to make farming comparable to other vocations. The book is more readable than many technical studies.

Forward pricing was studied by Johnson (39) to formulate a policy for price-setting in agriculture which would reduce uncertainties but allow

prices to direct the use of resources and divide products among consumers. By forward pricing he meant establishing a price far enough ahead of marketing so that farmers can plan their use of resources when embarking upon the production period. He did not consider forward pricing a panacea, but thought it superior to parities, production controls, marketing quotas, or dumping.

Monopoly

In 1938 the Temporary National Economic Committee of the United States Senate was charged with investigating the concentration of economic power. The committee published hearings, monographs, a final report, and other materials. Much of the material is of an earlier date than material ordinarily regarded as current research, but some of it is included in this chapter.

A monograph (85) analyzed the disposition of corporate profits, and showed how concentration of profits leads to insufficient new capital outlay to insure high national income. Savings will not be invested unless there is a market for the output of the plants or other outlays concerned. Hence for savings to go into capital outlays, the monograph adds, consumers generally must receive enough income to purchase the expanded output.

Monograph 26 analyzed lobbying (83). Pressure groups were studied regarding length of life, cohesion, visibility, and resources. Congress was considered the focus of pressure, but the President and courts receive attention. Areas of lobby interest were studied: i.e., industrial relations, tariff, taxes, banking, insurance, utilities, and railways. Improvement of government planning and bringing lobbies into the open were recommended.

Monograph 11 reported a study of bureaucracy and trusteeship within corporations (82). Problems of formalism and of communication within the internal hierarchy were examined. Recommendations included limiting the directorships which one person might hold, giving stockholders more information about officials, and federal sponsorship of research on large-scale organization. The final report (84) documented extensive concentration of power in securing capital, base-point pricing, and production curtailment; presented testimony from hearings; and recommended controls and a research program. Lynch (53) attempted to appraise the committee's work, emphasizing conditions of appointment, scope of activity, findings, and recommendations.

An analysis recently appeared (62) of monopoly in producing aluminum, tobacco, shoes, oil, farm machinery, and cash registers, and of oligopoly in producing typewriters, rayon, matches, electric motors, and fruit jars. The study showed how the theory of competitive enterprise exerts a negative influence when one corporation dominates a field. Two possible remedies were suggested: more government regulation, and reconstructed competition.

Bowen (7) showed the wartime economic concentration in large corpora-

tions. He classified three groups of small plants and showed the war effect on each. They had much idle capacity. From January 1941 to January 1943 their output remained steady, whereas industry as a whole expanded greatly. He later stated (8) that much war expansion was in large-scale heavy industry, for which small plants were unsuited. Another study (68) also showed marked wartime concentration of large enterprises, as judged by number of employees, value of plant, financing, and government-aided research. There were a half-million fewer industries in 1943 than in 1941, with most casualties among small enterprises. Advantages from the use of atomic energy will reportedly accrue to companies which equipped federal atomic plants. Weckler (88) said the study was unobjective.

The effect of different types of federal taxes on small and large enterprises was compared (15). Flat corporate rates increase industrial concentration. It was concluded that tax relief to small companies would not greatly reduce revenue, and that one way to improve the status of small business is to maintain a high level of general business activity.

Lasser (47) reviewed monopoly developments in several countries. He considered the main problem to be that of using monopoly power for rather than against democratic goals. Mason (55) traced the growth of international cartels as related to wartime security. Many ramifications regarding competition and pricing were also examined. Intergovernmental agreements were recommended, in contrast with private agreements supervised by government.

Organized Labor

The role of organized labor in this country is now thought to be more important than it was two decades ago. From labor's viewpoint, Baerwald (4) interpreted economic developments, labor-management relations, and labor legislation. A compilation from seventeen authors (50) considered bargaining techniques, multiple-industry agreements, organizing professional employees, grievance procedure, wage differentials, occupational specifications, and the rate of change in labor movements. The volume might stimulate wonder concerning "big business" and "big labor." The twenty-four articles of another volume (23) gave more attention to the public's interest in labor problems.

In studying organized labor since 1933, Barbash (5) reflected the internal structure and government of unions, noted stereotypes regarding communist unions, examined bargaining processes, and showed how legal agencies affect organizing practices. He thought an era in labor development began in 1933 and ended with the Taft-Hartley Act. Chamberlain (16) used case material in showing the extent to which unions penetrate traditional management areas and indicated the purposes, techniques, and competence of the penetration. He concluded that management and labor roles cannot be defined as spheres of exclusive interest, but that integration of all interest groups in an enterprise is necessary.

Thru records from ten unions, Ginzberg (28) studied high-ranking labor executives. He showed how environment influenced labor developments and indicated alternatives open to labor on current issues. He states that labor must interest itself in industrial efficiency and steady production, that unions must shift from "business organizations" managing their internal affairs, to "political organizations" interested in public affairs, and that leaders must educate union members regarding public welfare. Political recognition of labor thru the President's cabinet was traced by Lombardi (52), from 1884 to 1921. The years 1913-1931 were emphasized, considering 1921 as the end of a growth period with subsequent decline to 1933.

Guaranteed annual wages have been studied. One study (58) considered annual-wage and employment-guarantee plans; examined the structure and stated the "fundamentals" of successful plans; reviewed employment stabilization technics relative to buying habits, production plans, personnel policies, and labor reservoirs; and analyzed pertinent legislation. Tests of several plans were shown. Dunlop (19) analyzed methods of determining wages with reference to union wage policies. He emphasized psychological rather than strictly economic factors, and suggested a theory for wage determination.

Sufrin (72) studied pre-1939 theories concerning wage policies and business cycles. He said the literature lacked relevance in failing to take account of restraints and similar aspects of society. He found no integrated wage policy, and suggested research which he considered basic to formulating one.

Employment

There is generally thought to be a connection between employment and the economy of money, taxes, and prices. Fellner (24) examined the concept of "mature economies," relationships of wages to employment and production, contributions of economic rigidities to unemployment, timing of government action, and dangers in full-employment guarantees. Hansen (35) compared employment programs of various countries; examined policies regarding taxes, wages, consumption, and investment relative to employment; attacked certain proposals for securing full employment; and outlined problems of managing a full-employment economy. In 1945 Wallace (87) analyzed employment possibilities relative to private enterprise and a richer common life. He studied national income and unemployment costs, and the distribution of an estimated sixty million jobs and \$200 billion national income. A symposium (49) considered employment relative to public debt, taxation, public works, wage policy, national income, and foreign trade. Another volume (27) set forth proposals screened from an employment-plan contest, using the 200 best nonprize contributions from 36,000 entries.

In 1944 Groves (32) studied federal taxation relative to business and

employment. His recommendations were (a) repeal excess profit taxes and merge corporate tax into personal income tax; (b) allow more depreciation and loss "carry over"; (c) remove federal sales taxes; (d) make personal income tax the basis of federal revenues; and (e) reduce tax rates in middle and upper brackets.

Loeb (51) analyzed the "old deal" as emphasizing a dependence of employment on production, of production on profit expectation, and of profit on reduced costs thru lowered wages. The "new deal" recognized dependence of employment on production, but maintained that production depends on demand. Both "deals" were considered weak, in emphasizing distribution rather than creation of income, with nonproduction a potent factor in cycles. He concluded that coordination of new-money spending with taxation and wage adjustment could induce full production and allow wages and prices open-market freedom.

Polanyi (61) attempted to clarify Keynes (42) regarding full employment. Polanyi considered the following: (a) adjusting the money supply to employment and economic needs; (b) defining wealth as production, not as money; (c) freeing the money supply from gold; (d) protecting domestic employment thru tariffs; (e) relating full employment to free trade. He appears to be an ardent Keynesian.

National Income

Recent data have shown (64) that typically "have not" states now approach the top in per-capita income. North Dakota and Montana are among the few states with 1947 per-capita incomes over \$1600. The six states with largest percent increases from 1944 to 1947 are: North Dakota, Wyoming, Colorado, Montana, Idaho, and South Dakota. Farm prices and small population increases seem pertinent. While postwar incomes in the South are higher than prewar, curtailment of military payments particularly affect this section. Changes among states are considered results of short-term postwar factors. Data covering part of the report have been popularized (80).

Stigler (71) analyzed studies covering four-fifths of the national income originating in agriculture, manufacturing, mining, gas and electric utilities, and steam railroad operation. He also analyzed trends in employment, total output, and output per worker for 1899-1939. He showed relative change in contributions to national income and percent of the labor force engaged. He found output per worker an unreliable index of industrial efficiency.

The figure used as an index of national income depends on methods of income measurement. Shoup (66) criticised certain methods and attempted a sharper definition of categories. He studied income based on payment for ultimate factors of production and for final product, and examined complications introduced in considering government services and tax revenues. Certain data have been superseded, but major observations

remain pertinent. In defining income, Kuznets (45) encountered ethical and statistical problems and difficulty regarding an authentic denominator of value for all regions and all phases of a cycle. He experienced a shortage of data for valid comparisons, and suggested areas for research. One analysis of income concerned the multiplier principle (54), with particular reference to international trade and capital movements. Hypothetical situations were analyzed to avoid errors typical of limited facts.

Per-capita revenues from state taxes were recently studied (73). Computations by type of tax showed relative changes in yield from 1941 to 1947. In 1947, Tennessee and Nebraska had the lowest yields: \$25.71 and \$26.51 per capita, respectively. Mississippi, Arkansas, South Carolina, and Kentucky each exceeded Pennsylvania's \$29.78 per capita. California's \$59.18 per capita return was exceeded by New Mexico's \$62.25, and by Washington's \$70.83. Among conclusions are: several states now appear able to reduce taxes; it is doubtful if any state now really needs federal grants-in-aid. The data are interesting, but hardly substantiate either of these conclusions.

Decentralization of Industry

Renner (63) studied the following basic factors in locating industry: raw materials, markets, labor, power, transportation, and capital. When rapid industrialization occurs, industries may locate in uneconomical areas, he states, but as the economy matures and congestion develops such industries relocate. He predicted selective relocations within this country, but concluded that after an industrial pattern becomes set decentralization will probably be limited to spreading within established industrial regions rather than include migration to new regions, unless stimulated by government.

Local decentralizations have been reported. Weldon (89) showed locations of new properties for different companies. Other instances were reported (13) of plants established in suburbs, partly to secure women employees who could work near home. A spot-map (12) showed locations since 1940 of new plants of six large firms. New industrial areas in the West and South were noted, but "fanning out" was mostly to new sites near prewar plants.

A westward migration of metalworking was reported (69). Data on production, employment, and capacity were presented by regions and for two time intervals: 1939-1946 and 1946-1947. Senate hearings (81) reflected numerous facts, implications, and attitudes concerning decentralization in heavy industry. Burnett (10) summarized a census of manufacturing plants, covering plants employing over 100 persons each, and showing numbers and percents of plants and of employees for each of five size categories. Geographical distribution was shown as was distribution by industry.

Decentralization reflected thru nonresidential building has been reported (79). Data by regions for 1939 and 1947 showed that the West

(eleven states) had 16.6 percent of the country's nonresidential building in 1939, and 19.3 percent in 1947. Corresponding percents for other regions are: South Central (eight states), 11.7 and 15.1; North Central (twelve states), 27.2 and 28.8; Eastern (seventeen states), 44.5 and 36.8. In 1947, Texas built factories, warehouses, stores, and institutions worth \$232,200,000, or six times the 1939 figure. However, California led in 1947 with twice as much building as Texas. The report adds that the armed forces will probably let \$6 billion in contracts by mid-1949, avoiding congestion and vulnerable areas where possible. Causes of decentralization emphasized were: (a) pricing policies, (b) defense, and (c) freight rates.

Economic Planning

A wartime study (77) considered the following five aspects of industrial planning: (a) distribution of resources relative to industries; (b) growth and shift in location of industries; (c) bases for deciding upon locations; (d) importance of plant size, integration, and financial controls; and (e) geographical aspects of pricing. Altho the study aimed to help locate war industries, many findings are still pertinent. A study of postwar planning (78) considered plant demobilization and control; urban conservation and development; valley development; energy-resource development; public construction; and provision for health, education, and security. A human-conservation study (76) indicated the importance of cultural traditions and social attitudes regarding longevity, human needs, and the value of life, and urged decreased waste of the nation's potential human resources.

A summary of social and economic research of value for planning (18) was organized in five categories: (a) basic trends, (b) consumer requirements, (c) capital requirements, (d) government costs and foreign transactions, and (e) resources and capacities. No interpretations were made. A synopsis of parts of the book appeared in graphic form (14). The nation's resource status was recently set forth in graphs (57). Among items considered were the following: (a) labor force, (b) foreign sources of minerals which are scarce in this country, (c) domestic reserves of strategic minerals, (d) steel and food production, (e) electric power output, and (f) cost of wars.

Landauer (46) concluded that breaking monopolies, engaging in public works, extending social security, and stimulating international trade are too fragmentary to maintain prosperity, and that it is necessary to guide production and fully utilize resources for consumer welfare. Possible production or destruction thru atomic power, he adds, renders obsolete much pre-atomic planning.

Definiteness and detail in planning were emphasized by Wootton (90), who maintained that both planning and freedom suffer from generalities. The book was based on English sources.

General Economic Framework

Certain materials on general economic development were reported in Parts III and IV of a recent book (6) reflecting historical development in agriculture, industry, trusts, population, money and banking, labor, and commerce. Graham (31) analyzed economic organization and suggested institutional reforms for protecting liberal values. Efforts of economics to follow natural science causes it to *seek* immutable laws rather than *devise* useful technics, he thought, adding that the function of social scientists is to furnish institutional patterns which provide maximum equity and freedom as society changes.

In refuting an attack on democracy, Finer's (26) basic point is that liberty emerges from democratic relationships, not from property. Lasswell (48) compared this country and Russia regarding production, political power, and the relation of productivity to ideologies. He thought crises were favored by anything resulting in erratic change, and that economic systems reflect such change. Views concerning established rights of capital were examined by Ayres (3). He maintained that capitalism arose from particular social conditions, and must change with those conditions.

Simons (67) emphasized the point that economic liberalism assumed many small *laissez-faire* enterprises, rather than a few powerful organizations. He thought the economic dangers to democracy were from within. Gordon (29) studied government ownership in industry, regarding advantages to labor. He examined real and imaginary economies from Plato thru Robert Owen, with the post office as a government operated business. Developments in this country, England, and Sweden were compared with those in Russia. He concluded that workers need private employers as buffers against tyrannical minority government.

Van Til (86) illustrated a method of studying approaches to economic development, considering the following five approaches: (a) *laissez-faire*, the traditional system; (b) free markets, with trust busting; (c) cooperative planning by farsighted businessmen for public welfare; (d) two-front economy, with government supplementing private business; and (e) government planned and operated economy.

A comprehensive analysis of our economic framework, oriented on problems of education, recently appeared (21). Part III studied educational problems of an industrial society, with Chapter XI portraying technological change from 1860 to 1945, and Chapters XII and XIII reflecting shifts in control of industrial production and in distribution of income. Much material from various sources was analyzed and integrated.

Conclusions

Two significant items are noted here. The materials reveal considerable analysis of theory compared with new data illuminating problem areas.

Research can reach a point where further analysis of existing data yields diminishing returns. Progress then lies in determining the types of needed data, in devising new and better data-collecting instruments and methods, and in securing research funds. This approach is laborious, and is beyond the facilities of many students of economics. Without it, however, there is much rehashing of old materials with few new insights. Hence suggestions that government foster more economic research, thru the Department of Commerce or otherwise, seem in point. Among areas in which such research might be conducted are: (a) economic cycles, (b) organization of large-scale enterprise, (c) categories for analyzing national income, (d) pricing procedures conducive to economic stability, and (e) effects of different types of taxation.

Findings indicate that the competitive individual-enterprise economy applauded by disciples of Adam Smith has been extensively replaced by monopoly and oligopoly. Hence in teaching youth that people in this country today live in an economy of the former type, we are teaching a limited aspect of economic history as if it were inclusive current reality. Where such teaching achieves success, youth must get its acquaintance with economic reality outside the school. Among influences helping to perpetuate the teaching described, three are noted: (a) popular inertia in adjusting social concepts to harmonize with technological development, (b) teachers with obsolete economic understandings, and (c) groups dominating concentrations of economic power who profit by perpetuating the fiction of *laissez-faire*.

Bibliography

1. ALLEN, EDWARD D. and BROWNLEE, OSWALD H. *Economics of Public Finance*. New York: Prentice-Hall, 1947. 535 p.
2. AMERICAN ECONOMIC ASSOCIATION. *Readings in Business Cycle Theory*. Philadelphia: The Blakiston Company, 1944. 494 p.
3. AGES, CLARENCE E. *The Divine Right of Capital*. Boston: Houghton Mifflin Company, 1946. 214 p.
4. BAERWALD, FRIEDRICH. *Fundamentals of Labor Economics*. New York: Declan X. McMullen Company, 1947. 464 p.
5. BARBASH, JACK. *Labor Unions in Action*. New York: Harper and Brothers, 1948. 270 p.
6. BOGART, ERNEST L. and KEMMERER, DONALD L. *Economic History of the American People*. New York: Longmans, Green and Company, 1947. 856 p.
7. BOWEN, HOWARD R. "Impact of the War Upon Small Manufacturing Plants." *Survey of Current Business* 23 No. 7: 19-24; July 1943; 23 No. 9: 19-24; September 1943. Washington, D. C.: U. S. Government Printing Office.
8. BOWEN, HOWARD R. "Trends in the Business Population." *Survey of Current Business* 24: 8-13; March 1944. Washington, D. C.: U. S. Government Printing Office.
9. BRADY, ROBERT A. *Business as a System of Power*. New York: Columbia University Press, 1943. 340 p.
10. BURNETT, HAL. "McGraw-Hill Completes Census of Industry." *Industrial Marketing* 32: 54-55, 106; December 1947.
11. BURNS, ARTHUR F. and MITCHELL, WESLEY C. *Measuring Business Cycles*. New York: Bureau of Economic Research, 1946. 560 p.
12. BUSINESS WEEK. "Industry Fans Out." *Business Week* No. 899: 31-32; November 23, 1946.

13. BUSINESS WEEK. "Plants Move Nearer Workers." *Business Week* No. 894: 19-20; October 19, 1946.
14. BUSINESS WEEK. "USA—1950-1960." *Business Week* No. 921: 55-70; April 26, 1947.
15. BUTTERS, J. KEITH and LINTNER, JOHN V. *Effect of Federal Taxes on Growing Enterprises*. Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1945. 226 p.
16. CHAMBERLAIN, NEIL W. *The Union Challenge to Management Control*. New York: Harper and Brothers, 1948. 338 p.
17. CHUDSON, WALTER A. *The Pattern of Corporate Financial Structure*. New York: National Bureau of Economic Research, 1945. 148 p.
18. DEWHURST, J. FREDERIC AND OTHERS. *America's Needs and Resources*. New York: Twentieth Century Fund, 1947. 812 p.
19. DUNLOP, JOHN T. *Wage Determination Under Trade Unions*. New York: The Macmillan Company, 1944. 231 p.
20. ECCLES, MARRINER S., and OTHERS. *Curbing Inflation Through Taxation*. New York: Tax Institute (150 Nassau Street), 1944. 261 p.
21. EDWARDS, NEWTON and RICHEY, HERMAN G. *The School in the American Social Order*. Boston: Houghton Mifflin Company, 1947. 880 p.
22. ESTEY, JAMES ARTHUR. *Business Cycles*. New York: Prentice-Hall, 1941. 544 p.
23. FELDMAN, HERMAN, editor. "Labor Relations and the Public." *Annals of the American Academy of Political and Social Science* 248: 1-198; November 1946.
24. FELLNER, WILLIAM. *Monetary Policies and Full Employment*. Berkeley: The University of California Press, 1946. 268 p.
25. FINE, SHERWOOD MONROE. *Public Spending and Postwar Economic Policy*. New York: Columbia University Press, 1944. 177 p.
26. FINER, HERMAN. *Road to Reaction*. Boston: Little, Brown and Company, 1946. 228 p.
27. FITCH, LYLE and TAYLOR, HORACE, editors. *Planning for Jobs*. Philadelphia: The Blakiston Company, 1946. 463 p.
28. GINZBERG, ELI and CARWELL, JOSEPH. *The Labor Leader*. New York: The Macmillan Company, 1948. 191 p.
29. GORDON, MANYA. *How to Tell Progress from Reaction*. New York: E. P. Dutton and Company, 1944. 320 p.
30. GORDON, ROBERT AARON. *Business Leadership in the Large Corporation*. Washington, D. C.: Brookings Institution, 1945. 369 p.
31. GRAHAM, FRANK D. *Social Goals and Economic Institutions*. Princeton: Princeton University Press, 1942. 273 p.
32. GROVES, HAROLD M. *Production, Jobs and Taxes*. New York: McGraw-Hill Book Company, 1944. 116 p.
33. HABERLER, GOTTFRIED. *Prosperity and Depression*. Third edition. New York: Columbia University Press, 1946. 532 p.
34. HALM, GEORGE N. *Monetary Theory*. Second edition. Philadelphia: The Blakiston Company, 1946. 491 p.
35. HANSEN, ALVIN H. *Economic Policy and Full Employment*. New York: McGraw-Hill Book Company, 1947. 340 p.
36. HANSEN, ALVIN H. and PERLOFF, HARVEY S. *State and Local Finance in the National Economy*. New York: W. W. Norton and Company, 1944. 310 p.
37. IRVING TRUST COMPANY. *International Financial Stability*. New York: the Company, 1944. 186 p.
38. JACOBY, NEIL H. and SAULNIER, RAYMOND J. *Business Finance and Banking*. New York: National Bureau of Economic Research, 1947. 241 p.
39. JOHNSON, D. GALE. *Forward Prices for Agriculture*. Chicago: University of Chicago Press, 1947. 259 p.
40. JONES, MARTIN VINCENT. *Secular Trends and Idle Resources*. Chicago: University of Chicago Press, 1944. 72 p.
41. KATONA, GEORGE. *Price Control and Business*. Cowles Commission For Research in Economics, Monograph 9. Bloomington, Indiana: The Principia Press, 1945. 246 p.
42. KEYNES, JOHN MAYNARD. *The General Theory of Employment, Interest and Money*. New York: Harcourt, Brace and Company, 1936. 403 p.
43. KIMMEL, LEWIS H. and MARONEY, MILDRED. *Government Costs and Tax Levels*. Washington, D. C.: Brookings Institution, 1944. 153 p.

44. KROUT, JOHN A., editor. "Prices, Wages and Inflation." *Proceedings of the Academy of Political Science, New York* 23: 1-96; May 1948.
45. KUZNETS, SIMON. *National Income*. New York: National Bureau of Economic Research, 1946. 144 p.
46. LANDAUER, CARL. *Theory of National Economic Planning*. Berkeley: The University of California Press, 1947. 274 p.
47. LASSER, DAVID. *Private Monopoly: The Enemy at Home*. New York: Harper and Brothers, 1945. 306 p.
48. LASSWELL, HAROLD D. *World Politics Faces Economics*. New York: McGraw-Hill Book Company, 1945. 108 p.
49. LERNER, ABBA P. and GRAHAM, FRANK D., editors. *Planning and Paying for Full Employment*. Princeton: Princeton University Press, 1946. 222 p.
50. LESTER, RICHARD A. and SHISTER, JOSEPH, editors. *Insights Into Labor Issues*. New York: The Macmillan Company, 1948. 368 p.
51. LOEB, HAROLD. *Full Production Without War*. Princeton: Princeton University Press, 1946. 284 p.
52. LOMBARDI, JOHN. *Labor's Voice in the Cabinet*. New York: Columbia University Press, 1942. 370 p.
53. LYNCH, DAVID. *The Concentration of Economic Power*. New York: Columbia University Press, 1946. 423 p.
54. MACHULP, FRITZ. *International Trade and the National Income Multiplier*. Philadelphia: The Blakiston Company, 1943. 237 p.
55. MASON, EDWARD S. *Controlling World Trade*. New York: McGraw-Hill Book Company, 1946. 289 p.
56. MILLS, FREDERICK C. *Price-Quantity Interactions in Business Cycles*. New York: National Bureau of Economic Research, 1946. 140 p.
57. NATIONAL INDUSTRIAL CONFERENCE BOARD. *America's Resources for World Leadership*. New York: the Board, 1947. 32 p.
58. NATIONAL INDUSTRIAL CONFERENCE BOARD. *Annual Wage and Employment Guarantee Plans*. New York: the Board, 1946. 55 p.
59. NOURSE, EDWIN G. *Price Making in a Democracy*. Washington, D. C.: Brookings Institution, 1944. 541 p.
60. OWENS, RICHARD NORMAN. *Business Organization and Combination*. Third edition. New York: Prentice-Hall, 1946. 567 p.
61. POLANYI, MICHAEL. *Full Employment and Free Trade*. New York: The Macmillan Company, 1945. 155 p.
62. PURDY, HARRY L.; LINDAHL, MARTIN L.; and CARTER, WILLIAM A. *Corporate Concentration and Public Policy*. New York: Prentice-Hall, 1942. 650 p.
63. RENNER, GEORGE T. "Geography of Industrial Localization." *Economic Geography* 23: 167-89; July 1947.
64. SCHWARTZ, CHARLES F. and GRAHAM, ROBERT E. "State Income Payments in 1947." *Survey of Current Business* 28: 10-21; August 1948. Washington, D. C.: U. S. Government Printing Office.
65. SHEPHERD, GEOFFREY S. *Agricultural Price Policy*. Ames: Iowa State College Press, 1947. 440 p.
66. SHOUP, CARL S. *Principles of National Income Analysis*. Boston: Houghton Mifflin Company, 1947. 405 p.
67. SIMONS, HENRY C. *Economic Policy for a Free Society*. Chicago: University of Chicago Press, 1948. 353 p.
68. SMALLER WAR PLANTS CORPORATION. *Economic Concentration and World War II*. Report of the Corporation to the Special Committee to Study Problems of American Small Business. Seventy-ninth Congress. Second Session. Senate Document 206. Washington, D. C.: U. S. Government Printing Office, 1946. 359 p.
69. STEEL. "Geographic Shifts in Production, Employment, Capacity." *Steel* 118: S-20 to S-21; January 6, 1947.
70. STIGLER, GEORGE J. *The Theory of Price*. New York: The Macmillan Company, 1946. 340 p.
71. STIGLER, GEORGE J. *Trends in Output and Employment*. New York: National Bureau of Economic Research, 1947. 67 p.
72. SUFRIN, SIDNEY CHARLES. *Labor Policy and the Business Cycle*. Washington, D. C.: American Council on Public Affairs, 1943. 52 p. 2153 Florida Avenue.
73. TAX FOUNDATION. *Recent Trends in Major State Taxes: 1941-47*. New York: the Foundation, February 1948. 99 p. 30 Rockefeller Plaza.

74. TAYLOR, WILLIAM BAYARD. *Financial Policies of Business Enterprises*. New York: D. Appleton-Century Company, 1942. 867 p.
75. THOMAS, ROLLIN G. *Our Modern Banking and Monetary System*. New York: Prentice-Hall, 1942. 812 p.
76. U. S. NATIONAL RESOURCES PLANNING BOARD. *Human Conservation*. Washington, D. C.: U. S. Government Printing Office, 1943. 126 p.
77. U. S. NATIONAL RESOURCES PLANNING BOARD. *Industrial Location and National Resources*. Washington, D. C.: U. S. Government Printing Office, 1942. 360 p.
78. U. S. NATIONAL RESOURCES PLANNING BOARD. "Post-War Plan and Program." *National Resource Development: Report for 1943*. Washington, D. C.: U. S. Government Printing Office, 1943. Part I, 81 p.
79. U. S. NEWS AND WORLD REPORT. "Pressure for Shift of Industry." *U. S. News and World Report* 25: 36-39; July 16, 1948.
80. U. S. NEWS AND WORLD REPORT. "Where Incomes Rise Fastest: Sales Planners' Guide to States' Market." *U. S. News and World Report* 25: 21-23; September 3, 1948.
81. U. S. SEVENTY-NINTH CONGRESS. First and Second Sessions. Senate Committee on Interstate Commerce. Hearings before a Subcommittee. *Decentralization of Heavy Industry*. Washington, D. C.: U. S. Government Printing Office, 1946. 120 p.
82. U. S. TEMPORARY NATIONAL ECONOMIC COMMITTEE. *Bureaucracy and Trusteeship in Large Corporations*. Monograph 11. Washington, D. C.: U. S. Government Printing Office, 1940. 144 p.
83. U. S. TEMPORARY NATIONAL ECONOMIC COMMITTEE. *Economic Power and Political Pressures*. Monograph 26. Washington, D. C.: U. S. Government Printing Office, 1941. 222 p.
84. U. S. TEMPORARY NATIONAL ECONOMIC COMMITTEE. *Final Report and Recommendations of the Temporary National Economic Committee*. Senate Document 35. Washington, D. C.: U. S. Government Printing Office, 1941. 784 p.
85. U. S. TEMPORARY NATIONAL ECONOMIC COMMITTEE. *Profits, Productive Activities and New Investment*. Monograph 12. Washington, D. C.: U. S. Government Printing Office, 1941. 188 p.
86. VAN TIL, WILLIAM. *Economic Roads for American Democracy*. New York: McGraw-Hill Book Company, 1947. 252 p.
87. WALLACE, HENRY A. *Sixty Million Jobs*. New York: Simon and Shuster, 1945. 216 p.
88. WECKSLER, A. N. "Decentralization vs. Monopoly." *Purchasing* 17: 73-76; December 1944.
89. WELDON, JOHN D. S. "A Study of Regional Shifts in U. S. Industry." *The Magazine of Wall Street* 79: 535-36, 584; February 15, 1947.
90. WOOTTON, BARBARA F. *Freedom Under Planning*. Chapel Hill: University of North Carolina Press, 1945. 180 p.
91. YOUNGMAN, ANNA P. *The Federal Reserve System in Wartime*. New York: National Bureau of Economic Research, 1947. 67 p.

CHAPTER V

Education and International Order

WILLIAM G. CARR and WILBUR F. MURRA

EDUCATION has made a twofold response to the increasing impact of world affairs on American life. First, within the United States, the schools have accepted a larger responsibility for making education a more effective instrument for the development of international understanding; and second, educators, students, and educational organizations have multiplied their contacts beyond our national borders. This review will, accordingly, be divided into two main parts—(I) "Education for International Understanding" and (II) "International Educational Relations"—preceded by an introductory section on general studies and followed by suggestions for needed research.

This topic has not received separate attention in previous issues of the REVIEW, altho Kandel cited some relevant reports in his October 1936 article on "Comparative Education," and in June 1948 Douglass and others reviewed nine curriculum studies in the international field. A critical review of the literature, "International Educational Co-operation" by Brickman (11), appeared in *School and Society* in 1946.

General Studies

Wartime studies in curriculum revision, textbook analysis, and planning for postwar international educational relations were summarized by Wilson (127). One wartime statement of special significance because of its content, sponsorship, and subsequent influence was *Education and the People's Peace* (66), published in 1943 by the Educational Policies Commission as a forecast of education's postwar role in world affairs. The proposals of this pamphlet calling for "A United Nations Council on Educational Policy" and "An International Agency for Education" have since been partially realized by the establishment of Unesco. Another wartime publication which helped lay the groundwork for postwar policy with respect to both education for peace and international educational cooperation was the September 1944 *Annals*, "International Frontiers in Education" (18).

Since the war, three major studies have neatly supplemented one another (by coincidence, since each was separately planned and conducted) in making recommendations for programs directed toward international understanding on all educational levels: schools, colleges, and adult groups. The study devoted to education for international understanding in elementary and secondary schools was cooperatively sponsored by the NEA Committee on International Relations, the Association for Supervision and Curriculum Development, and the National Council for the Social

Studies (19, 67). The college-level study was sponsored by the Council on Foreign Relations (29) and the adult-education study was sponsored by the Institute of Adult Education in cooperation with the American Association for Adult Education (1). In each case, a book-length report was issued. These volumes each contain recommendations derived from a combination of expert opinion and the results of nationwide surveys of current practice. In general, the three reports agree in urging that more attention be given to international education on all levels and that programs be organized more coherently.

I. Education for International Understanding

Philosophy and Objectives

The recent literature of education is replete with statements of the need for and aims of education for international understanding. Research workers may gain valuable orientation for their studies by consulting such significant statements of philosophy and objectives as are found in the books of Benjamin (10), Conant (23), and Jones (50), and in the articles by Northrop (70) and Zimmern (132).

Some statements of educational goals represent the consensus of groups. Three of these have special significance because they are international in origin and in application as well as in content. They are the reports of two wartime sessions of the International Education Assembly (42, 43) and the "Recommendations on the Teaching of International Understanding" adopted by the World Conference of the Teaching Profession in 1946 (131). A panel of eleven American scholars contributed a carefully interwoven series of critical analyses of issues in "World-Minded Education" to the third yearbook of the Society for the Psychological Study of Social Issues (31). Probably the broadest base for any published statement of the educational objectives of international understanding is that provided by the more than 950 persons who helped prepare the previously cited NEA report, *Education for International Understanding in American Schools* (67). The heart of this volume, and the framework around which it is written, is its cooperatively developed list of the ten "marks of the world-minded American." Some of these statements are: "The world-minded American realizes that civilization may be imperiled by another world war . . . knows that nothing in human nature makes war inevitable . . . has a deep concern for the well-being of humanity . . . acts to help bring about a world at peace in which liberty and justice are assured for all."

Measurement of Attitudes and Information

The need for more and better programs of education for international understanding is revealed by the results of tests and attitude surveys re-

ported during the past three years. The postwar pattern of investigation in this area appears to have centered more attention on the knowledge and attitudes of adults and to have dealt less than formerly with high-school and college students. This shift is due in part to the increased activities of the various public-opinion polls.

Few surveys of high-school student attitudes were reported in the past three years. The most extensive, both in number of cases and in range of topics, is that of Remmers and others published under the title, *Youth Looks at War and Peace* (78). A more localized study, involving 500 students in one New York City high school and utilizing a conventional paper-and-pencil attitude test, is reported by Becker (9). He found that the respondents expressed more liberal and international attitudes on theoretical questions than on practical issues. In Cincinnati, samples of adults and of eleventh-grade pupils answered the same seventeen questions of fact and opinion about the United Nations and other international topics (123). The high-school group surpassed their older fellow-citizens in knowledge as well as in degree of "internationalism."

What was the effect of war experience on the international attitudes of veterans? Those who had predicted that the foreign contacts of men and women in the armed services during the war would make them more internationally minded were refuted by Smith (91), whose critical analysis of veterans' attitudes showed that dislike of foreign peoples was the characteristic outcome of their overseas experiences in both the European and Pacific war theaters. On the other hand, veterans apparently did not develop the marked nationalistic attitudes that had been widely predicted for them. Geduldig and Erdberg (33) found that 150 veterans enrolled in a New York evening high school in 1947 were only slightly more nationalistic and conservative in their attitudes toward world affairs than were 170 of their nonveteran fellow-students.

Attitudes of college students in several institutions were measured at successive dates during the war. Three roughly parallel studies of this type, reported after the war's end, are in substantial agreement in showing the persistence of attitude patterns in spite of changing world events (77, 82, 96). One of these investigators, Seago (82), observed that "stereotyped attitudes . . . seem to be relatively uninfluenced by events that do not immediately invoke the emotions."

Adult attitudes were also kept under scrutiny thruout the war by the various public-opinion polls, using the interview technic with representative population samples. Postwar summaries of wartime trends, based on a variety of successive polls, have been prepared by Cantril (15) and by Williams (122). Cantril's data suggest that the American public in general shifted its outlook on war and international issues in response to changes in the world situation to a greater extent than was the case with college students involved in the studies mentioned in the preceding paragraph. Williams' analysis of wartime public opinion, as measured by the

polls, led him to the conclusion that "people in the United States have much greater interest in domestic than in international affairs."

The polls, of course, continue. Indeed, their coverage has broadened and their technics have been refined as thousands of interviewers regularly take the pulse of the American people on the widest variety of international, domestic, and personal questions. Statistical summaries of all the major findings are conveniently assembled every three months in the *Public Opinion Quarterly's* regular department, "The Quarter's Polls." Two summaries of trends and patterns in public thinking on international affairs, both constructed of composites of poll data, appeared in popular magazines in 1947: Sheatsley in the *United Nations World* (83) noted the continuing strength of international idealism coupled with a steady decline (from 1945 to 1947) in optimism as to likelihood of lasting peace and increasing dissatisfaction with the United Nations; and Isaacs in *Newsweek* (45) compressed his conclusions from essentially the same data into the statement that "the American majority man . . . is a reluctant internationalist, who hopes for the best in world affairs but expects the worst." More detailed compilations are to be found in two comprehensive reports of the National Opinion Research Center (68, 69).

A special investigation sponsored by the Social Science Research Council in 1946 (26, 95) showed that the widely publicized tests of the atomic bomb at Bikini caused no appreciable shifts in opinion. Moreover, the findings led the investigators to the following conclusions:

For a sizable proportion of the American public, international affairs have very little reality. The psychological imminence of world events varies enormously within the population. . . . Only a minority of the people can be considered actively conversant with contemporary world problems. A fourth or more of the population are completely detached from these problems. . . . For the most part, those Americans who are poorly informed on world affairs are not motivated to learn; they do not avail themselves of information which is immediately at hand.

The data of the Social Science Research Council investigation were subjected to further analysis by Smith (87, 89) in an effort to relate attitudes to information. His unsurprising conclusion was that "internationalism" in attitudes correlates positively with information about world affairs. The implications of this correlation are the more serious when it is examined in the light of other evidence that actual levels of information on world affairs are disturbingly low. Thus, Gallup (32) reported that in November 1947 only 61 percent of all American adults had ever heard of the Marshall Plan; that only 25 percent knew the purpose of the Marshall Plan; and that only 13 percent could locate Bulgaria on a map of Europe. In speculating on the responsibility for such ignorance, Gallup exonerated the newspapers and blamed the schools.

American attitudes toward the Soviet Union have evoked a significant amount of interest and effort on the part of poll-takers and testers. Walsh (120) and M. B. Smith (92) used poll data to analyze the constituents

and correlates of attitudes toward Russia; while G. H. Smith (85, 86, 88, 90) developed a 12-point scale for measuring group attitudes toward Russia and published a series of reports on results obtained by using the scale with high-school students, college students, and adults. G. H. Smith's investigations showed that Americans with more information about Russia tended to have more friendly attitudes toward Russia, while M. B. Smith showed merely that the better informed were "more concerned" about Russia's part in the world today.

Surveys of Curriculum and Methods

A nationwide picture of what is currently being done in elementary and secondary schools to teach international understanding can be approximated from the series of many brief reports which constitute Chapter V of the NEA study (67), previously cited. The volume by Adam (1), also mentioned above, contains many comparable illustrations of current practices in adult education; while that by Kirk (56) cites some representative examples from colleges and universities.

The twenty-fifth yearbook of the NEA Department of Elementary Principals (64) assembles in one 366-page volume a collection of reports describing the varied approaches of elementary-school teachers as of about the year 1945. School practices are included among the more extensive descriptions of out-of-school activities by organized adult groups in the survey of nineteen American cities which Dalglish made for the Council on Foreign Relations in 1945-46 (29).

Increasing attention to international affairs in school curriculums of two western states is indicated from the findings reported by Cooke for California (24) and by Miller for Colorado (61). An intensive analysis of the "international content" of each of the several subject fields taught in the senior high schools of Cleveland, Ohio, was made by the International Relations Curriculum Center of the Cleveland Public Schools (20).

An "Enquiry into Teaching about the United Nations" was initiated early in 1947 by Unesco. Replies from eleven member nations, including the United States (59), were summarized in a report issued in October 1947 (104), which stated as the first of its nine conclusions:

In view of the fact that the United Nations has been in existence only a little over two years, the amount and quality of teaching about it in the schools of the Unesco Member States reporting on such work is impressive. Furthermore, indications point to the fact that even more comprehensive plans are being made for the immediate future. In every reporting country there is some interest in teaching about the United Nations and its Specialised Agencies, but that interest is by no means widespread within the nations.

A summary of Unesco's 1947 "Enquiry" with other material added, including reports from ten additional nations, was presented to the United Nations Economic and Social Council in June and July 1948 (100, 103). A brief

1948 report on teaching about the United Nations in American Schools was submitted by the United States government directly to the United Nations in July 1948 in response to action of the UN General Assembly in November 1947 requesting such reports from all UN member states (119).

A survey of current practices in American schools was announced early in 1948 by the American Association of University Women (2), but results have not yet been reported.

How local teachers' associations have studied international affairs under sponsorship of the NEA Committee on International Relations has been reported by Olsen (73) and by Murra (62). Teachers' opportunities to study international relations in summer-school classes and workshops were cataloged by Johnston (48). A questionnaire survey by Arndt and Hager (5), based on returns from 117 institutions, revealed the wide variety of ways thru which prospective teachers broaden their world understanding in American teachers colleges.

Surveys of Teaching Materials

For three decades, widespread interest has been manifested in the content of school textbooks in relation to international understanding. Unesco, now spearheading international activity in this area, issued in 1946 the first of a projected series of studies and reports: *Looking at the World Through Textbooks* (108). This document is devoted primarily to a historical review of intergovernmental cooperation in textbook revision. Two longer studies of similar scope have recently appeared in this country. Quillen (76) followed a brief review of past international efforts with an extensive summary of private and governmental activities in the United States, an appraisal of the "textbook-improvement movement in the United States," and a series of recommendations for national and international action. Krould and Conover (57) prepared an exhaustive review of published materials in this field from many countries, to which they appended a useful series of extracts from many little known and relatively inaccessible documents.

The principal contribution to research in this area that has so far been made in the United States has been the quantitative and qualitative analysis of the content of American textbooks with respect to each of several foreign nations and regions. Four major studies of this type have been sponsored by the American Council on Education. The first and largest of the four dealt with Latin America and Inter-American relations. School and college teaching materials were evaluated in terms of adequacy, accuracy, and sensitivity (3). Hart's separately published summary of this study (36), after itemizing many of the distortions and omissions which were found to characterize textbook treatment of Latin America, adds that "there is no evidence of a conscious or perverted antagonism towards Latin America in basic teaching materials. Errors and deficiencies found are mainly the result of carelessness, ignorance, or thoughtlessness."

The second study, on the treatment of Asia in American textbooks (4), also found some errors and distortions, but stressed the conclusion that not nearly enough information about an area containing more than half the population of the earth is presented to American children and youth in their schoolbooks. Similar findings were reported by the investigators who studied textbook content about Canada (13, 79). This study, unlike the others, was directed by a bi-national committee; teachers from both Canada and the United States participated in the project, which also involved a study of what Canadian textbooks say about the United States. Treatment of the Soviet Union in American textbooks has been briefly reported by Burkhardt (12).

Two recent Russian textbooks were analyzed by Counts; one with respect to its narrative of world history for the years 1789-1870 (28), and the other for its treatment of the history of World War II (27). Ideological and nationalistic biases were revealed in both instances, but many interpretations favorable to the United States were also found.

According to a study reported by Lewin and Schwerin (58), boys' stories published in Nazi Germany were found to contain many subtle ideological slants, and unlike comparable juvenile literature in this country, usually had adults rather than boys for heroes.

Pamphlets on international affairs are widely recommended for both adult and student use. However, available pamphlets fail to achieve maximum educational effectiveness, says Guckenheimer (35), because of their difficult reading level. This investigator measured the readability of thirty-six representative pamphlets on international affairs and found all of them to be too difficult for the average adult and only nine to be easy enough for high-school juniors and seniors.

How audio-visual materials can contribute to international understanding was considered by a conference of eighty-six specialists in June 1946. The proceedings of the conference, including thirty-nine specific recommendations to Unesco, were subsequently published by the American Council on Education (75). At another conference, in Claremont, California, in 1947, the role of sound films for aiding world understanding was analyzed by Atwood (7).

Five radio programs suitable for inschool listening and judged to be of value for promoting "world understanding and friendship" were evaluated by Novokovsky (71) in a brief report which also described the use of such programs in the Philadelphia Public Schools.

Educational films for international understanding have recently been identified and evaluated by each of two competent committees. The more intensive of the two studies was published by the Institute of Adult Education (84), whereas the more extensive study was issued under auspices of the Educational Film Library Association (30). In each case an annotated list of 16 mm. films is accompanied by critical discussions on film use.

II. International Educational Relations

Educational Reconstruction

The Second World War left the United States with a larger measure of responsibility and concern for other parts of the world than this country had ever known before. This new orientation for the nation as a whole has been shared by American educators, who have expressed their concern with unprecedented interest and action in relation to the educational problems of other nations, particularly the war-devastated nations of Europe and Asia. Action has been guided in part by practical research.

The United States government has been officially concerned with reconstruction of the educational systems of the two major Axis powers, Germany and Japan. Because of the large share of responsibility which our government holds for the postwar administration of those nations, the Department of State in 1946 selected two groups of American educators to visit Germany and Japan to analyze the educational problems found there, and to make recommendations to guide official policy. The reports of these two missions are of fundamental importance for study of education in the two countries involved (114, 115). T. V. Smith, the only person who served as a member of both missions and who had also worked in postwar Italy, prepared a comparative evaluation of prospects for the future of democratic education in each of the three countries. He rated the prospects most hopeful for Japan and least hopeful for Italy (93).

Reconstruction of the physical facilities necessary for carrying on education in the war-devastated countries has received more attention from Americans than has the redirection of educational policy and curriculums (except, perhaps, in the cases of Germany, Japan, and Korea). UNRRA was early in the field, even before hostilities ceased. Its accomplishments and problems were analyzed by Williams (121). In 1947, altho it did not actually operate a relief program, Unesco began vigorous promotion of educational, scientific, and cultural relief and rehabilitation. Principal research activities of Unesco in this area of operation have been devoted to identification and measurement of the educational needs of war-devastated countries (53, 54, 98).

American response to these needs has involved action and gifts on a large scale by many individuals and educational groups, with the Commission for International Educational Reconstruction serving as principal coordinator of American efforts. The CIER staff prepared a summary of American organizational activities in its *Handbook* (22), and the staff director reviewed the Commission's work to early 1948 (94). Aid to foreign teachers as teachers rather than to schools characterized the NEA "Overseas Teacher-Relief Fund," about which Ashby (6) reported that \$275,000 had been contributed by American teachers in less than one year (1947-48). The funds were expended primarily for food, clothing, books, and scholarships for teachers in war-devastated areas.

International Educational and Cultural Exchange

The high educational value of firsthand contact with other cultures and countries has long been recognized. Such values have accrued to many thousands of American and foreign scholars, teachers, and students in the less than four years that have passed since the end of World War II. Sponsored by governmental and private agencies, with added stimulus of individual initiative, American activities in the fields of international educational exchange, international conferences, and educational foreign travel are at the present time in a stage of rapid expansion. The multiplication of such activities has been paralleled by a growing volume of published materials on opportunities, experiences, and values in this area.

In anticipation of such developments as those just noted, sixty-three educators from thirty-four countries met in New York City shortly before the war's end, as the third session of the International Education Assembly, to discuss problems and establish guideposts for postwar national and international action. The proceedings and recommendations of this conference are embodied in the pamphlet, *International Education through Cultural Exchange* (44).

The role of national governments in promoting international cultural relations was exhaustively studied by McMurry and Lee (60). Their report, a substantial volume devoted primarily to historical and comparative analysis, reveals that the United States government—by establishing a Division of Cultural Relations in the Department of State in 1938—was a relative latecomer in the field. Other countries in Europe and Latin America had taken earlier action, the pioneer being France, where *Oeuvres Françaises à l'étranger* was established as a division of the French Foreign Office in 1906. The authors conclude that the "cultural approach" to international relations offers great, but as yet largely unrealized, opportunities for achievement of world understanding.

What our government has done, and plans to do, in promoting cultural relations thru teacher and student exchange, is set forth in three reports by officials of the Department of State and the U. S. Office of Education. Colligan (21) reviewed the record with special reference to international exchange of college professors. His statistical data indicate the expanding role of the federal government in promoting such exchange, but his conclusion is that governmental activity must remain supplementary to programs which should rest on the initiative of individual professors and their institutions. Cotner (25) catalogs five types of opportunities for those who wish to teach in the elementary and secondary schools of other countries. The program for government-subsidized foreign study under the provisions of the Fulbright Act is explained in a recent pamphlet of the Department of State (112).

The most fully developed program of systematic exchange for American elementary- and secondary-school teachers is that which has been in operation between this country and the United Kingdom for more than

two decades. Initiated by the English-Speaking Union, and interrupted during the war, the program is now operated under governmental auspices. Representative of the many individual appraisals of this program by participating teachers are the reports of Wilson, an American who taught in England in 1939-40 (124), and Carmichael, a primary teacher from Yorkshire who taught in South Carolina in 1947-48 (16). Evaluation of the educational and international outcomes of the entire British-American exchange program, which has now involved several hundred teachers, is an important research job yet to be done.

International exchange programs for teachers in public schools are in some ways facilitated, but more often are handicapped by the diverse laws of the several states. Two studies of the complex legal issues involved have been published (52, 63), both of which point up the need for new legislation.

In dealing with international exchange of college students and related problems, the chief American center for study and operations is the Institute of International Education in New York. A continuous flow of information and interpretive analysis is provided by the Institute's monthly *News Bulletin* (39). In addition, the Institute published a *Handbook* (38) in 1947 which catalogs opportunities for students from war-devastated areas to study in the United States and a *Special Report* (40) in 1948 which summarizes a wide range of problems related to Americans' study abroad as well as to foreign students in the United States.

Values derived from intermingling of college students from several different countries at the summer seminars sponsored by the American Friends Service Committee are reported by Johnson (47). An appraisal of the Rhodes scholarships, which have enabled more than one thousand American young men to study in England during the past forty years, has been made by Aydelotte (8). Foreign students enrolled in California colleges reported their problems of adjustment in a questionnaire study reported by Peterson and Neumeyer (74). The investigators found that the chief problems center around academic matters and appear to be mostly due to language difficulties.

International exchange of high-school students is less frequent than that of college and university students. Exchanges among elementary-school pupils are very few in this country altho they are not uncommon in Western Europe. Greatest opportunities for international experiences for high-school youth exist between the United States and Canada. Such experiences under school auspices are more numerous than is commonly realized: Goodman devotes thirteen pages to summarizing them in his recent report on "Current Practices in Canadian-American Interchanges of Educational Personnel" (34). Another section of the same report canvasses interchanges of teaching personnel between the United States and Canada. A footnote in this publication states that Goodman, a graduate student at the Harvard Graduate School of Education, has also completed an unpublished study on Canadian-American exchanges of "college and university, professional

school, and adult education students." One of the most significant of the high-school-student exchanges reported by Goodman is that between Roosevelt High School, Wyandotte, Michigan, and Girls' High School, Montreal, carried out under auspices of the Junior Red Cross in 1946; it has been separately reported by Strauss (97).

Educational travel that brings American teachers and students into firsthand contact with foreign countries and peoples is, in some respects, merely an abbreviated variant of educational exchange. Reports on recent experiences of this type have been made by Kinsel and Golladay (55) and by Jacob (46). Summaries of the values of educational travel and of the principles which should guide such experience were included in pamphlets by Olsen (72) and the NEA Travel Service (65).

International Educational Organizations

The United Nations Educational, Scientific and Cultural Organization, planned in 1945 and established in 1946, now provides the principal organizational framework for international educational relations. In addition, other organizations which were formed before World War II continue operations in their respective fields of special interest (e. g., the semi-governmental International Bureau of Education and the nongovernmental New Education Fellowship), and some new international groups have come into being (e.g., the nongovernmental World Organization of the Teaching Profession).

In anticipation of just such developments as led to the establishment of Unesco and WOTP, several historical studies of earlier experience in that direction were prepared during the later war years. Kandel (51) dealt particularly with the period from 1919 to 1939 with special reference to the League of Nations' International Organization of Intellectual Cooperation. Carr (17) traced briefly the longer story of proposals and achievements from the time of Comenius. Rossello's longer treatment (30) of the same historical background ended with an expanded report on the work of the International Bureau of Education, founded in 1925 in Geneva. The more recent activities of the IBE are regularly reported in its quarterly *Bulletin* (41), which also provides a useful source of current information on educational developments and new publications in all parts of the world.

Delegates from thirty-eight national nongovernmental teachers' associations in twenty-eight countries met at Endicott, New York, in August 1946 to set up the World Organization of the Teaching Profession (131). The Second Delegate Assembly, meeting in London in 1948, noted the growth of the world organization and studied reports of its first five research projects, each of which was based on the contributions of teachers' groups in several different countries. The reports—dealing, respectively, with health education, exchange of pupils and teachers, extension of literacy, social studies and current affairs, and the problem of an international language—appear in the Proceedings of the Assembly (130).

How Unesco came into being and the problems confronting the new organization on the eve of its first general session in November 1946 were analyzed in a series of articles in *The School Executive* subsequently reprinted in pamphlet form (81). Continuing developments of Unesco from the beginning to early 1948 were traced by Wilson in two numbers of *International Conciliation* (125, 128). A statement of Unesco's purpose and philosophy, as conceived by the organization's director-general early in his term of office, was published in this country in 1947 (37).

Other articles and pamphlets about Unesco are very numerous and can easily be found by consulting the 242-item bibliography issued by the Library of Congress in October 1948 (49) and the standard indexes. Research workers who seek the basic documents should turn to the wealth of printed and processed material continually emanating from Unesco House (19 Avenue Kléber, Paris 16) and from the Unesco Relations Staff of the U. S. Department of State. From either or both of these sources can be obtained reports of the London (107, 110), Paris (99, 113), Mexico City (101, 116), and Beirut conferences; the reports of the director-general (102); and reports on such special Unesco projects as the survey of teaching about the United Nations (103, 104), the seminar on the teaching of international understanding (105), and educational reconstruction in war-devastated areas (53, 54, 98). Descriptions of two other major projects, fundamental education (106) and tensions effecting international understanding (14), are available in this country from private publishers.

Participation by the American people in the program of Unesco can best be studied by reference to the activities of the United States National Commission for Unesco—and especially in the reports of the three public conferences held under the Commission's auspices in Philadelphia (126), Denver (117), and San Francisco (118). A critical analysis of the structure, functions, and operations of the National Commission was prepared by Wilson (129).

III. Needed Research

One kind of needed research, in this field as in many others, is sharp and critical analysis of basic concepts and terminology. Does international understanding, as far as education is concerned, stem from the development of generalized sentiments of goodwill, the recognition of human brotherhood, and feelings of kindness and humanitarianism toward the peoples of other races and nations? Is international understanding different from the understanding of other human beings in general, whether citizens of the same country or not? How is international understanding related to intercultural understanding which has lately become so common in American education?

Should education with reference to international understanding deal primarily with a systematic knowledge of current and developing inter-

national issues, or with an appreciation of the methods available for the resolution of these issues? What proportion of the emphasis on international understanding should be given to a direct factual knowledge of the way in which other people and other nations live, and of their ideals, political and economic organizations, religious institutions, and cultural patterns?

This critical approach could usefully be made to many of the other concepts now prevalent in the literature of the subject, such as, "international tensions," "freedom to teach and to learn," "international cooperation," and "education for a world society."

In addition to the analysis of the theoretical assumptions underlying education for international understanding and a clarification of terms, it would be useful to have experimental studies which would attempt to measure changes in knowledge, attitudes, and habits which occur as the result of specific kinds of instruction. It would be particularly helpful to know how permanent these changes are, and under what conditions they are most lasting. Subordinate to such types of investigation is the development of adequate measuring instruments for information and attitudes with reference to international questions.

One area that may perhaps be especially rewarding is the study of the long-range effects of particular kinds of educational experience upon young children. Is it true that particular kinds of education can produce, even in very young children, strong and lasting sentiments of national and racial superiority? If so, are there other kinds of education which would produce opposite results, and under what conditions would these other kinds of education be acceptable to popular opinion? What are the relative effects of inschool and out-of-school influences on the concepts and attitudes which children and youth acquire with respect to international affairs.

To what extent are the international attitudes of teachers transmitted to their students? What kinds of education should be provided for teachers and prospective teachers to equip them for their responsibilities in making education an effective force for world peace?

When we turn from the organized schools to the less definitely organized programs of adult education, we move into an area which is really a study of public opinion and the forces which play upon it. It would be useful to know whether the same forces which shape the opinion of adults are equally effective on children and how lasting these forces may be during the life of the individual concerned.

Turning to questions of cooperation between educators in the United States and those of other countries, a new series of problems for research presents itself. Unesco has now been operating long enough to merit careful and critical study of what it has been able to accomplish. The 1948 program of Unesco, even when stated in rather succinct terms, occupied thirty-eight pages. In the complexity and ramifications of the Unesco program, what items are most successful and useful? What has been the experience of Unesco, and what has been its relative success, in the various

areas in which it has been operating—in fundamental education, in the analysis of textbooks, in scientific cooperation, and so on?

A larger question deserving careful study is the relation of Unesco to the other specialized agencies of the United Nations. The pattern of administrative relationships has become extremely complex. In these early stages of development there is great need for critical studies in administration which would indicate appropriate spheres of activity and workable administrative relationships.

What knowledge from the field of comparative education can aid American educators in their international professional relations and in rounding out their programs of education for international understanding? Answers to this question, determined by research, could usefully serve as guides to further research in comparative education and would have practical implications for teacher-education programs. A closely related area of inquiry is indicated by the need for comparative studies of the structure, functions, and work of teachers' organizations and other educational societies in the various countries of the world.

There is need, too, for identification and appraisal of existing agencies and publications which are available to assist research workers concerned with the several aspects of international education. Such investigations might point up the need for more and better fact-gathering mechanisms—such as abstracting and bibliographic services.

The greatly increased role of the people of the United States in world affairs and the sudden surge of interest among the teaching profession in international questions combine to make the field of education and international order a promising area for many types of educational research. Such research should be useful in clarifying purposes, improving methods, and evaluating results.

Bibliography

1. ADAM, THOMAS R. *Education for International Understanding*. New York: Institute of Adult Education, 1948. 181 p.
2. AMERICAN ASSOCIATION OF UNIVERSITY WOMEN. "Survey of U. N. Teaching." *Journal of the American Association of University Women* 41: 173-74; April 1948.
3. AMERICAN COUNCIL ON EDUCATION. COMMITTEE ON THE STUDY OF TEACHING MATERIALS ON INTER-AMERICAN SUBJECTS. *Latin America in School and College Teaching Materials*. Washington, D. C.: the Council, 1944. 496 p.
4. AMERICAN COUNCIL ON EDUCATION AND THE AMERICAN COUNCIL, INSTITUTE OF PACIFIC RELATIONS. COMMITTEE ON ASIATIC STUDIES. *Treatment of Asia in American Textbooks*. New York (1 East 54th Street), American Council; Institute of Pacific Relations, 1946. 104 p.
5. ARNDT, CHRISTIAN O. AND HAGER, WALTER E. "International Education Activities in Teachers Colleges." *Twenty-Sixth Yearbook*, 1947. American Association of Teachers Colleges. Oneonta, New York: the Association, 1947. p. 107-13.
6. ASHBY, LYLE W. "Report on the Overseas Teacher-Relief Fund." *National Education Association Journal* 37: 353-56; September 1948.
7. ATWOOD, WALLACE W. "Audio-Visual Images That Should Widen Our Horizons." *Twelfth Yearbook*. Claremont College Reading Conference. Claremont, California: Curriculum Laboratory, Claremont College, 1947. p. 26-29.

8. AYDELOTTE, FRANK. *The American Rhodes Scholarships*. Princeton: Princeton University Press, 1946. 208 p.
9. BECKER, ARTHUR. "What Students Think at Midwood High School." *High Points* 29: 13-19; February 1947.
10. BENJAMIN, HAROLD. *Under Their Own Command*. Kappa Delta Pi Lecture Series. New York: The Macmillan Company, 1947. 88 p.
11. BRICKMAN, WILLIAM W. "International Educational Co-operation." *School and Society* 64: 386-91; November 30, 1946.
12. BURKHARDT, RICHARD W. "The Soviet Union in American School Textbooks." *Public Opinion Quarterly* 11: 567-71; Winter 1947-48.
13. CANADA-UNITED STATES COMMITTEE ON EDUCATION. *A Study of National History Textbooks Used in the Schools of Canada and the United States*. Washington, D. C.: American Council on Education, 1947. 81 p.
14. CANTRIL, HADLEY. "Human Sciences and World Peace." *Public Opinion Quarterly* 12: 236-42; Summer 1948.
15. CANTRIL, HADLEY. "Opinion Trends in World War II: Some Guides to Interpretation." *Public Opinion Quarterly* 12: 30-44; Spring 1948.
16. CARMICHAEL, EVA. "Building International Goodwill Through Teacher Exchange." *Official Report*. American Association of School Administrators. Washington, D. C.: the Association, a department of National Education Association, 1948. p. 98-105.
17. CARR, WILLIAM G. *Only By Understanding: Education and International Organization*. New York: (22 East 38th Street), Foreign Policy Association, 1945. 96 p.
18. CARR, WILLIAM G., editor. "International Frontiers in Education." *Annals of the American Academy of Political and Social Science* 235: 1-134; September 1944.
19. CHERRINGTON, BEN M. and MURRA, WILBUR F. "Education for International Understanding." *National Education Association Journal* 37: 274-75; May 1948.
20. CLEVELAND [OHIO] PUBLIC SCHOOLS. *International Relations Curriculum Center. The Teaching of International Relations in Senior High Schools*. Cleveland: the Center, 1946. 106 p.
21. COLLIGAN, FRANCIS J. "The Visiting Professor and International Understanding." *American Association of University Professors Bulletin* 33: 332-44; Summer 1947.
22. COMMISSION FOR INTERNATIONAL EDUCATIONAL RECONSTRUCTION. *CIER Handbook*. Washington, D. C.: the Commission, 1947. 38 p.
23. CONANT, JAMES B. *Education in a Divided World*. Cambridge: Harvard University Press, 1948. 249 p.
24. COOKE, W. HENRY. *The Teaching of International and Intercultural Understanding in the Public Schools of California*. San Francisco: (68 Post Street), International Center, 1946. 82 p.
25. COTNER, THOMAS E. "Fellowship Opportunities and Teaching Positions in Other Countries." *School Life* 30: 3-8; December 1947.
26. COTTRELL, LEONARD S., JR. and EBERHART, SYLVIA. *American Opinion on World Affairs in the Atomic Age*. Princeton: Princeton University Press, 1948. 152 p.
27. COUNTS, GEORGE S. "The Second World War in a Soviet High School History." *Social Education* 10: 345-47; December 1946.
28. COUNTS, GEORGE S. "Soviet Version of American History." *Public Opinion Quarterly* 10: 321-28; Fall 1946.
29. DALGLIESH, W. HAROLD. *Community Education in Foreign Affairs*. New York: (58 East 68th Street), Council on Foreign Relations, 1946. 70 p.
30. FLORY, ELIZABETH H., editor. *Films for International Understanding*. New York: Educational Film Library Association, 1947. 134 p.
31. FRANK, LAWRENCE K. and OTHERS. "World-Minded Education." *Human Nature and Enduring Peace*. Society for the Psychological Study of Social Issues. Third Yearbook. New York: Reynal and Hitchcock, 1945. Chapter 16, p. 239-94.
32. GALLUP, GEORGE H. "What Makes Us So Ignorant?" *National Municipal Review* 36: 612-17; December 1947. *Reader's Digest* 52: 119-21; March 1948.
33. GEDULDIG, ABRAHAM and ERDBERG, CARL. "Veterans' Attitudes Toward the Contemporary World." *High Points* 29: 5-17; September 1947.
34. GOODMAN, ABRAHAM H. "Current Practices in Canadian-American Interchanges of Educational Personnel." *Canadian Education* 3: 6-46; June 1948.

35. GUCKENHEIMER, SIG N. "Readability of Pamphlets on International Relationships." *Educational Research Bulletin* 26: 231-38; December 1947.
36. HART, DONN V. "What Do Our School Books Say About Latin America?" *Harvard Educational Review* 14: 210-20; May 1944.
37. HUXLEY, JULIAN. *UNESCO: Its Purpose and Its Philosophy*. Washington, D. C.: (2153 Florida Avenue, N. W.), American Council on Public Affairs, 1947. 62 p.
38. INSTITUTE OF INTERNATIONAL EDUCATION. *Handbook of Fellowship, Scholarship, and Study Grant Opportunities in the United States for Students from War Devastated Areas*. New York: the Institute, 1947. 45 p.
39. INSTITUTE OF INTERNATIONAL EDUCATION. *Institute of International Education News Bulletin*. New York: (2 West 45th Street), the Institute. (Monthly publication.)
40. INSTITUTE OF INTERNATIONAL EDUCATION. *Special Report: Conference on International Student Exchanges, May 10, 11, 12, 1948, University of Michigan*. New York: the Institute, 1948. 79 p.
41. INTERNATIONAL BUREAU OF EDUCATION. *International Bureau of Education Bulletin*. Geneva, Switzerland: the Bureau. Palais Wilson. (Quarterly publication.)
42. INTERNATIONAL EDUCATION ASSEMBLY. *Education for a Free Society*. Washington, D. C.: International Education Assembly, 1944. 32 p.
43. INTERNATIONAL EDUCATION ASSEMBLY. *Education for International Security*. New York: School Executive, 1943. 30 p.
44. INTERNATIONAL EDUCATION ASSEMBLY. *International Education Through Cultural Exchange*. Washington, D. C.: the Assembly, 1945. 45 p.
45. ISAACS, HAROLD. "The American Majority Man." *Newsweek* 30: 32-33; August 4, 1947.
46. JACOB, PHILIP E. "Floating Seminars, 1947: Training for International Understanding." *Social Education* 12: 23-27; January 1948.
47. JOHNSON, ERIC W. "Peace Education Through International Student Seminars." *School and Society* 67: 465-68; June 26, 1948.
48. JOHNSTON, MARJORIE C. "Summer Study Programs in the Field of International Relations." *National Education Association Journal* 35: 188-89; April 1946. *School Life* 28: 27-30; May 1946.
49. JONES, HELEN DUBENBOSTEL. *United Nations Educational, Scientific, and Cultural Organization: A Selected List of References*. Washington, D. C.: Library of Congress, 1948. 56 p. (Multi.)
50. JONES, HOWARD MUMFORD. *Education and World Tragedy*. Cambridge: Harvard University Press, 1946. 178 p.
51. KANDEL, ISAAC L. *Intellectual Cooperation: National and International*. New York: Teachers College, Columbia University, 1944. 78 p.
52. KEESECKER, WARD W. "International Exchange of Teachers—Legal Aspects." *School Life* 28: 11-14; December 1945.
53. KENWORTHY, LEONARD S. *Going to School in War Devastated Countries*. Washington, D. C.: Commission for International Educational Reconstruction, 1947. 18 p.
54. KENWORTHY, LEONARD S. *The Teacher and the Post-War Child in War Devastated Countries*. Paris: Unesco, 1947. 48 p.
55. KINSEL, PAUL H. AND GOLLADAY, NADINE. "Teacher Travelers." *Bulletin of the Pan American Union* 81: 602-607; November 1947.
56. KIRK, GRAYSON L. *The Study of International Relations in American Colleges and Universities*. New York: (58 East 68th Street), Council on Foreign Relations, 1947. 113 p.
57. KROULD, HARRY J. AND CONOVER, HELEN. *Textbooks, Their Examination and Improvement*. Washington, D. C.: Library of Congress, 1948. 155 p. (Multi.)
58. LEWIN, HERBERT S. AND SCHWERIN, KURT. "Wartime German Youth Books Were Used for Indoctrination." *Library Journal* 72: 1008-11; July 1947.
59. McMURRY, RUTH E. *Preliminary Report on the Teaching About the United Nations and Its Auxiliary Organizations in Secondary Schools in the United States*. Washington, D. C.: U. S. Department of State, September 2, 1947. 14 p. (Mimeo.)
60. McMURRY, RUTH E. AND LEE, MUNA. *The Cultural Approach: Another Way in International Relations*. Chapel Hill: University of North Carolina Press, 1947. 280 p.
61. MILLER, IVAN E. *A Summary of a Survey to Ascertain the Extent to Which the Public Schools of Colorado Are Including Problems of International Relations*

- in the *Social Studies Classes of Grades Seven Through Twelve*. Denver: University of Denver, 1946. 8 p. (Mimeo.)
62. MURRA, WILBUR F. "The N. E. A. and International Relations." *New York State Education* 34: 542-44; April 1947.
 63. NATIONAL EDUCATION ASSOCIATION. COMMITTEE ON TENURE AND ACADEMIC FREEDOM. *Legal Status of American Teachers on Foreign Exchange*. Washington, D. C.: the Association, 1948. 8 p.
 64. NATIONAL EDUCATION ASSOCIATION. DEPARTMENT OF ELEMENTARY SCHOOL PRINCIPALS. *Learning World Goodwill in the Elementary School*. Department of Elementary School Principals, Twenty-Fifth Yearbook. Washington, D. C.: the Department, a department of National Education Association, 1946. 366 p.
 65. NATIONAL EDUCATION ASSOCIATION. DIVISION OF TRAVEL SERVICE. *Travel*. Washington, D. C.: the Association, n. d. 4 p.
 66. NATIONAL EDUCATION ASSOCIATION and AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS, EDUCATIONAL POLICIES COMMISSION. *Education and the People's Peace*. Washington, D. C.: the Association, 1943. 59 p.
 67. NATIONAL EDUCATION ASSOCIATION, COMMITTEE ON INTERNATIONAL RELATIONS; ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT; and NATIONAL COUNCIL FOR THE SOCIAL STUDIES. *Education for International Understanding in American Schools*. Washington, D. C.: the Association, 1948. 241 p.
 68. NATIONAL OPINION RESEARCH CENTER. *UNESCO and Public Opinion Today*. Report No. 35. Chicago: University of Chicago, 1947. 74 p.
 69. NATIONAL OPINION RESEARCH CENTER. *Where UNESCO Begins; The Climate of Opinion in the United States and Other Countries*. Report No. 34. Denver: the Center, University of Denver, 1947. 66 p.
 70. NORTHROP, FILMER S. C. "Education for Intercultural Understanding." *Journal of Higher Education* 18: 171-81; April 1947.
 71. NOVOKOVSKY, GERTRUDE D. "Radio—A Medium Toward World Friendship." *Progressive Education* 25: 105, 107; April 1948.
 72. OLSEN, EDWARD G. *Social Travel; A Technique in Intercultural Education*. New York: Hinds, Hayden, and Eldredge, 1947. 46 p.
 73. OLSEN, EDWARD G. "Teachers Study International Issues." *National Education Association Journal* 34: 135; October 1945.
 74. PETERSON, JAMES A. and NEUMEYER, M. H. "Problems of Foreign Students." *Sociology and Social Research* 32: 787-92; July-August 1948.
 75. PRESTON, HELEN SEATON, editor. *Use of Audio-Visual Materials Toward International Understanding*. Washington, D. C.: American Council on Education, 1946. 168 p.
 76. QUILLEN, I. JAMES. *Textbook Improvement and International Understanding*. Washington, D. C.: American Council on Education, 1948. 78 p.
 77. REMMERS, HERMANN H. and WOOD, WENDELL F. "Changes in Attitudes Toward Germans, Japanese, Jews, and Nazis." *School and Society* 65: 484-87; June 28, 1947.
 78. REMMERS, HERMANN H. and OTHERS. *Youth Looks at War and Peace*. The Purdue Opinion Poll for Young People, Vol. 7, No. 1, Lafayette, Indiana: Division of Educational Reference, Purdue University, 1947.
 79. ROBINSON, DONALD W. "Canadian-American Relations in American History Textbooks." *The Social Studies* 38: 350-57; December 1947.
 80. ROSSELLO, PEDRO. *Forerunners of the International Bureau of Education*. (Butts, Marie, editor.) London: Evans Brothers, 1944. 120 p.
 81. SCHOOL EXECUTIVE. *Understanding Through Education: Report on Education and the World Today*. New York: School Executive, 1946. 48 p.
 82. SEAGO, DOROTHY W. "Stereotypes: Before Pearl Harbor and After." *Journal of Psychology* 23: 55-63; January 1947.
 83. SHEATSLEY, PAUL B. "Public Opinion: John Doe Looks at World Problems." *United Nations World* 1: 44-45; May 1947.
 84. SILLARS, ROBERTSON, editor. "Films for Forums on International Relations." *Film Forum Review* 2: 13-64; Spring 1947.
 85. SMITH, GEORGE HORSLEY. "Attitudes Toward Soviet Russia." *Journal of Social Psychology* 28: 3-33; February 1946.
 86. SMITH, GEORGE HORSLEY. "Correlates of the Russian Attitude Scale." *Journal of Psychology* 20: 183-87; October 1945.

87. SMITH, GEORGE HORSLEY. "Information, Radicalism, and Internationalism." *Public Opinion Quarterly* 12: 125-27; Spring 1948.
88. SMITH, GEORGE HORSLEY. "The Interrelationships of Attitudes Toward Russia and Some 'General Desires.'" *Journal of Psychology* 21: 91-95; January 1946.
89. SMITH, GEORGE HORSLEY. "Liberalism and Level of Information." *Journal of Educational Psychology* 39: 65-81; February 1948.
90. SMITH, GEORGE HORSLEY. "A Note on Attitudes and Information." *Journal of General Psychology* 37: 193-97; October 1947.
91. SMITH, MAHLON B. "Did War Produce International-Mindedness?" *Harvard Educational Review* 15: 250-57; October 1945.
92. SMITH, MAHLON B. "Personal Setting of Public Opinions: A Study of Attitudes Toward Russia." *Public Opinion Quarterly* 11: 507-23; Winter 1947-48.
93. SMITH, THOMAS V. *The Re-education of Germany, Italy, and Japan*. Claremont, California: Friends of the Colleges at Claremont, Claremont College, 1947. 22 p.
94. SNYDER, HAROLD E. "Building International Understanding through Educational Reconstruction in War-Devastated Countries." *Bulletin of the National Association of Secondary-School Principals* 32: 24-32; March 1948.
95. SOCIAL SCIENCE RESEARCH COUNCIL. COMMITTEE ON SOCIAL AND ECONOMIC ASPECTS OF ATOMIC ENERGY. *Public Reaction to the Atomic Bomb and World Affairs*. Ithaca: Cornell University Press, 1947. 310 p.
96. STAGNER, ROSS and OSGOOD, CHARLES E. "Impact of War on a Nationalistic Frame of Reference: Changes in General Approval and Qualitative Patterning of Certain Stereotypes." *Journal of Social Psychology* 24: 187-215; November 1946.
97. STRAUSS, FRANCES. "Travelling Abroad in America." *Progressive Education* 24: 164-67, 188-90; March 1947.
98. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *The Book of Needs of Fifteen War-Devastated Countries in Education, Science and Culture*. Paris: Unesco, 1947. 111 p.
99. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *General Conference, First Session: Held at Unesco House, Paris, from 20 November to 10 December 1946*. Paris: Unesco, 1947. 288 p.
100. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *Interim Report to the Economic and Social Council on Teaching the Purposes and Principles, the Structure and the Activities of the United Nations in the Schools of Member States* . . . [and] *Addendum to the Interim Report*. . . . Doc. E/837 and E/837/Add. 1. Lake Success, New York: United Nations Economic and Social Council, 1948. 86 p. and 30 p. (Mimeo.)
101. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *Records of the General Conference of the United Nations Educational, Scientific, and Cultural Organization, Second Session, Mexico, 1947*. Three volumes. Paris: Unesco, April 1948. Vol. I, *Proceedings*, 637 p.; Vol. II, *Resolutions*, 68 p.; Vol. III, *Reports of Member States* [and] *Report on the Financial Administration of the Organization*, 130 p.
102. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *Report of the Director-General on the Activities of the Organisation in 1947*. Paris: Unesco, 1947. 95 p.
103. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *Report to the Economic and Social Council on Teaching About the United Nations and Its Specialized Agencies*. Paris: Unesco, 1948. 11 p.
104. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *Teaching Concerning the United Nations and Its Specialized Agencies in the Schools of Unesco Member States*. Paris: Unesco, October 9, 1947. 35 p. (Mimeo.)
105. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *Unesco in Action*. Paris: Unesco, 1947. 8 p.
106. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. COMMISSION ON FUNDAMENTAL EDUCATION. *Fundamental Education: Common Ground for All Peoples*. New York: The Macmillan Company, 1947. 325 p.
107. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. PREPARATORY COMMISSION. *Conference for the Establishment of the United Nations Educational, Scientific and Cultural Organization, Held at the Institute of Civil Engineers, London, from the 1st to the 16th November, 1945*. London: Preparatory Commission, Unesco, June 1946. 156 p.

108. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. PREPARATORY COMMISSION. *Looking at the World Through Text-Books*. Paris: Preparatory Commission, Unesco, November 14, 1946. 27 p. (Mimeo.)
109. UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. PREPARATORY COMMISSION. *Report on the Programme of the United Nations Educational, Scientific and Cultural Organization*. Paris: Preparatory Commission, Unesco, September 15, 1946. 164 p.
110. U. S. DEPARTMENT OF STATE. *the defenses of peace: Documents Relating to UNESCO*. Report of the London conference which drafted Unesco constitution and established the Preparatory Commission, Nov. 1-16, 1945. Department of State Publications 2457 and 2475. Washington, D. C.: U. S. Government Printing Office, 1946. 31 p. and 58 p.
111. U. S. DEPARTMENT OF STATE. *Digest of UNESCO Program for 1948*. (International Organization and Conference Series IV. No. 2.) Washington, D. C.: U. S. Government Printing Office, March 1948. 9 p.
112. U. S. DEPARTMENT OF STATE. *Educational Exchanges Under the Fulbright Act*. International Information and Cultural Series. No. 2. Washington, D. C.: U. S. Government Printing Office, August 1948. 6 p.
113. U. S. DEPARTMENT OF STATE. *First Session of the General Conference of the United Nations Educational, Scientific and Cultural Organization, Paris, November 19-December 10, 1946: Report of the United States Delegation with Selected Documents*. (Conference Series 97.) Washington, D. C.: U. S. Government Printing Office, 1947. 157 p.
114. U. S. DEPARTMENT OF STATE. *Report of the United States Education Mission to Germany*. (European Series 16.) Washington, D. C.: U. S. Government Printing Office, 1946. 50 p.
115. U. S. DEPARTMENT OF STATE. *Report of the United States Education Mission to Japan*. (Far Eastern Series 11.) Washington, D. C.: U. S. Government Printing Office, 1946. 62 p.
116. U. S. DEPARTMENT OF STATE. *Second Session of the General Conference of the United Nations Educational, Scientific and Cultural Organization, Mexico City, November 6-December 3, 1947: Report of the United States Delegation, with Selected Documents*. (International Organization and Conference Series IV, United Nations Educational, Scientific and Cultural Organization No. 1.) Washington, D. C.: U. S. Government Printing Office, 1948. 186 p.
117. U. S. NATIONAL COMMISSION FOR UNESCO. *Report on Mountain-Plains Regional Conference on Unesco, Denver, Colorado, May, 1947*. Washington, D. C.: U. S. Department of State, 1947. 40 p.
118. U. S. NATIONAL COMMISSION FOR UNESCO. *Report on Pacific Regional Conference on Unesco, San Francisco, California, May 13, 14, 15, 1948*. Washington, D. C.: U. S. Department of State, 1948. 79 p.
119. U. S. OFFICE OF EDUCATION. DIVISION OF INTERNATIONAL EDUCATIONAL RELATIONS. *Report on Teaching About the United Nations in the Schools of the United States: Report of the United States to the United Nations*. Washington, D. C.: U. S. Department of State, 1948. 6 p. (Mimeo.)
120. WALSH, WARREN B. "American Attitudes Toward Russia." *Antioch Review* 7: 183-90; June 1947.
121. WILLIAMS, CHESTER S. "UNRRA and the Problem of Educational Rehabilitation." *Education for Victory* 3: 8-10; January 3, 1945. *Education Digest* 10: 57-59; February 1945.
122. WILLIAMS, FREDERICK W. "Polling Postwar Issues." *Journal of Consulting Psychology* 10: 35-44; January 1946.
123. WILSON, CHARLES H. "Pupils versus Adults in World-Affairs Poll." *National Education Association Journal* 37: 147; March 1948.
124. WILSON, CHARLES H. "World Understanding and Teacher Exchange." *Educational Research Bulletin* 27: 1-7; January 21, 1948.
125. WILSON, HOWARD E. *The Development of UNESCO*. International Conciliation, No. 431. New York: Carnegie Endowment for International Peace, May 1947. 41 p.
126. WILSON, HOWARD E. *National Conference on UNESCO, Philadelphia, Pennsylvania, March 24-26, 1947*. Washington, D. C.: U. S. Department of State, 1947. 19 p.

127. WILSON, HOWARD E. "Postwar Education for International Understanding." *American Education in the Postwar Period: Curriculum Reconstruction*. National Society for the Study of Education. Forty-Fourth Yearbook, Part I. Chicago: University of Chicago Press, 1945. Chapter XII, p. 246-66.
128. WILSON, HOWARD E. *Unesco: 1947-48*. International Conciliation, No. 438. New York: Carnegie Endowment for International Peace, February 1948. 38 p.
129. WILSON, HOWARD E. *The United States National Commission for UNESCO*. Kappa Delta Pi Lecture Series. New York: The Macmillan Company, 1948. 96 p.
130. WORLD ORGANIZATION OF THE TEACHING PROFESSION. *Proceedings of the Second Delegate Assembly, London, July 23-28, 1948*. Washington, D. C.: the Organization, 1948. 101 p. (Mimeo.)
131. WORLD ORGANIZATION OF THE TEACHING PROFESSION. PREPARATORY COMMISSION. *Proceedings of the World Conference of the Teaching Profession, August 17-30, 1946, Endicott, New York, United States of America*. Washington, D. C.: Preparatory Commission, the Organization, 1947. 111 p.
132. ZIMMERN, ALFRED. "Right and Wrong Approaches to Education for International Understanding." *First Yearbook*. American Association of Colleges for Teacher Education. Oneonta, New York: American Association of Colleges for Teacher Education, 1948. p. 189-96.

CHAPTER VI

Reshaping Educational Policy

HERMANN H. REMMERS and NATHANIEL L. GAGE

THE organization of the relevant literature of the past three years requires the rather careful definition of the terms comprising the title of this chapter. Reshaping may be accomplished by individuals or by small groups or by broad impersonal social forces operating on all facets of our culture, including educational policy. The adjective "educational" may carry significances relating narrowly to formal endeavors in school classrooms or, more broadly, to society at large as in the church, state, family, armed forces, and fraternal organizations as well as the schools. Policy, defined as a course of administrative action, may refer to that of a single classroom teacher or principal on the one hand, or to that of the United Nations operating thru Unesco on the other.

Where along these continua should attention be focused? In a dictatorship a single individual may, in fact, determine and shape policy. Currently, education in America, whether broadly or narrowly conceived, is shaped by many relatively small, locally autonomous administrative units, such as school communities, districts, counties, and states. While the influence of the federal government on educational policy making appears to be growing in importance, it has on the whole entered into policy making only in indirect and general ways. Since our educational program is operating neither under a dictatorship nor under strict federal control, other more general factors must be the significant concerns that are shaping educational policy.

The period of this review is the three years following the end of World War II. During these years all the usual postwar stresses, aggravated by the extent and complexity of our war effort, have furnished the context in which current educational policy is being shaped. Veterans returning from the armed services, war workers returning to their peacetime pursuits, the inflated economy usual after a war, the economic gaps (e.g., housing) that developed during the depression and widened during the war, the reconversion of industry, the renewal or beginning of millions of family lives, and the growing awareness of intercultural tensions—such signs of social change indicate the problems which have confronted our citizenry during these years. Overhanging all these like a black cloud has been the urgency of international relations resulting, in a large measure, from the discovery of atomic fission and the development of the atomic bomb. The resultants of these and other forces have taken form in the serious thinking and writing of the time. Nine of these factors, selected from a much larger number found in the pertinent literature of the period, seem to be major concerns in the shaping of educational policy. They constitute a natural basis for the organization of the remainder of this chapter.

Rethinking Educational Goals

Perhaps the most significant publication during this three-year period was that of the President's Commission on Higher Education (91). Volume I, "Establishing the Goals," altho concerned primarily with higher education, has implications for all levels of the educational program. The principle of "diversity in unity" is cited as the continuing goal of American higher education. Democracy as both end and means of education recurs as a theme thruout the report so that most of its analyses and recommendations stem from this controlling orientation. The significance of this report lies not so much in the novelty as in the boldness, clarity, and authority of its statements.

Hutchins (47) sharply criticized this report thru a plea for the concentration of educational effort on goals that can be optimally achieved thru education and thru a freeing of educational endeavor from responsibilities that it cannot fulfill at all, or as well as can be done by other social institutions. Thus the proper task of education is to build intellectual power; such objectives as healthy living, satisfying family life, and getting on well with people should not be considered as "basic outcomes" on a par with this primary function. Hollinshead (44) criticized the President's Commission on other grounds: (a) the Commission has vastly overestimated the number of young people who should go to college but cannot for lack of money; (b) the Commission has incorrectly assumed that college training is the only road to educational advancement; and (c) the Commission assumes that leadership is lost when qualified students do not attend college. Furthermore, Hollinshead considers the Commission's recommendations dangerous to private institutions and thus inimical to academic freedom.

The report of another group appointed by the President, the Scientific Research Board (92), bears on the reshaping of policy, especially in science education and research. The five volumes of this report are concerned only with the physical and biological sciences altho "it does not follow that action in these areas is necessarily more pressing than in other fields of knowledge. A case might even be made for the greater urgency of increasing our basic knowledge in areas commonly included in the social sciences." It is to be hoped that the recognition thus given to the social sciences will soon be implemented by a study of similar authority and magnitude. More than on higher education, this report is focused on military security as against international understanding and on economic productivity as against democratic ideals. But the need for scientifically trained personnel as revealed by this report sets a goal for American education that is urgent and immediate.

The Educational Policies Commission, continuing the series begun in 1944 (64) and 1945 (65), published a volume (63) dealing with the elementary schools from the kindergarten thru the sixth grade. Part I of this volume describing a series of hypothetical schools as seen by an

observer in 1958, set lines of progress in terms of the following: (a) serving all children, (b) organizing the faculty for group effort, (c) revising the curriculum, (d) organizing and administering the school, and (e) improving the school plan. Such discussions were presented in turn for rural, suburban, and urban communities. Part II dealt with "Signposts" observed in elementary-school practices dealing with curriculums, staff, administration, and community relationships all presented for their value as stimuli to local initiative.

At a more philosophical level, Hook (45) discussed the ends of education as growth, democracy, and intelligence derived thru experimental and scientific reasoning, as opposed to theological and metaphysical approaches. Also discussed was the fallacy of deducing the end of education from a postulation of rationality as a uniquely human trait. In *Modern Education and Human Values*, Bode and others (11) restated fundamental considerations involved in establishing educational goals. Tead (85) dealt with the social setting of education and its challenge, the philosophy and functional services of education, and the role of teaching and administrative processes in meeting the challenge.

A journalistic approach was given by Fine (37). While goals were not treated as such specifically, by implication the equalization of educational opportunity, the improvement of the quality of education, and the broadening of the impact of education at all levels were advocated. His direct concern was, however, entirely with means such as teachers' salaries, tenure, training, and school facilities, and a critical examination of the ends of education was not involved.

The yearbooks of the American Association of School Administrators (2, 3, 4, 5) deserve mention because of the strategic position of this body in implementing whatever goals of education they envisage. These Yearbooks have taken as their point of departure in each of the volumes some consideration of educational goals. Perhaps worthy of special mention is the Twenty-Fourth Yearbook (4), *School Boards in Action*, which dealt with an important and too frequently neglected fulcrum of educational policy. Another publication (57) should be mentioned here since it emanates from the Department of Higher Education of the National Education Association and thus presents the views of a large body of educators. Grace and others (40) summarized the implications of wartime training programs for peacetime education.

Kirkendall, Kuenzli, and Reeves (51) presented a forthright statement for the Commission on Educational Reconstruction of the American Federation of Teachers, in which they pointed to the urgent need for the schools to help close the gap between scientific advance and social development. Subordinate to this major goal, a number of others were treated. In the Eighth Yearbook of the John Dewey Society (18) problems particularly related to the American high school were considered.

Examples of school and community cooperation in developing educational goals (14, 52, 76) are worthy of note. Brameld (14) particularly

reported an experiment with junior and senior classes of a high school in which a survey of adult wartime opinion furnished the springboard for a study of conditions and prospects in such areas as economics, politics, art, science, education, and human relations and led to the drawing up of their own tentative "design for America" as well as for their own lives and community.

A committee headed by McConnell (55) considered the importance of education as a social instrument and the characteristics of a comprehensive school system related thereto. General education as the primary function of such a school system is discussed in a later section.

Democratization of Educational Practices

It is apparent that there is an increasing concern with the democratization of educational procedure. Schools have more and more been basing their policies upon the expressed opinions of pupils, parents, teachers, and citizens in general. School administrators are searching for more democratic practices in the internal operation of schools on the ground that, in this way, better decisions will be made and carried out with higher morale and with greater transfer to democratic living in other phases of community and national activity. Schoolboards have been more and more turning for guidance to the consumers of education by means of opinion surveys of pupils, teachers, and parents.

In a revision of their extensive volume, Barr, Burton, and Brueckner (10) reconsidered the meaning, problems, and practices involved in supervision from the standpoint of democratic leadership and the improvement of learning. A case study of some effects of undemocratic school administration in a small community was presented by the NEA's National Committee for the Defense of Democracy thru Education (56). Further theoretical discussions of democratic administration (9, 58, 86) dealt respectively with the need for a "conciliar" type of administrative organization, the relationship between leadership and authority in school administration, and the promotion of inservice professional development of Negro teachers thru planning with teachers and pupils.

Practical illustrations of democratic procedures in action have been accumulating. Davies (26) described democratic administration in terms of the development of a collective bargaining contract between the schoolboard and the Teacher's Association in Norwalk, Connecticut. Richards (77) reported a procedure at Denison College by which students rated their teachers and administrators. The colleges and universities of Indiana have participated in a voluntary program for the evaluation of instructional and administrative staff thru ratings by students and academic subordinates (75). Doll (31) reported a study of the opinions of 1237 pupils concerning laissez-faire, democratic, and autocratic methods; Elvira (34) dealt with the same mode of approach. Morley (61) and Novak (69) described high-school policy committees composed of teachers selected by their peers.

Friedman (38) and Storen (84) illustrated the consultation of parents and other laymen in the formation of meaningful curriculums. Storen (84) also discussed typical problems that arise in attempts to carry out such a program. The Educational Director of the International Ladies Garment Workers Union in the 1946 Inglis lecture at Harvard University (82) analyzed the historical anti-labor bias of American education in curriculum, selection of students, and neglect of labor history; in sum, "our frame of reference needs revision."

Experimental testing of the hypothesis that group leadership can be improved was described in the Preliminary Report of the First National Training Laboratory on Group Development (66). Peters (70) described democratic procedures in social studies in public schools which he terms democratic action-centered citizenship training.

Equalization of Educational Opportunity

Sources of the postwar upsurge in concern for equalizing educational opportunity may be plausibly hypothesized to include: (a) our wartime propaganda (both for national unification behind democratic ideals and for overseas consumption by our allies and enemies) emphasizing democracy as concerned for the dignity of the individual and the right to the realization of all his potentialities; (b) wartime recognition of the vast waste of economic potential thru failure to educate our human resources to the limit; (c) technological advancement and the accumulation of wealth during the past few generations to the point where gainful employment of youth became decreasingly necessary; and (d) growing recognition of the need for a more highly educated electorate to meet the demands of a more complex world.

Volume II of the Report of the President's Commission on Higher Education (91) dealt specifically and in detail with the problem. Noteworthy is the full concern in the Report with the problem of racial and religious discrimination in higher education. Specific proposals for lowering barriers to equal opportunity were made in terms of federal scholarships and grants-in-aid, elimination of tuition in publicly controlled institutions thru the fourteenth year, the withholding of federal funds from institutions where discriminatory practices exist, curriculum improvement to attract and hold students, and the establishment of free public community colleges.

The President's Scientific Research Board (92) in its concern with research manpower, also advocated federal fellowships and scholarships. Conant (21) continued his plea for equalized opportunity by pointing out that "the way to right the balance between the large cities and the rest of the country and between the higher and lower income groups is to improve the educational opportunities in the smaller cities, the towns, and the rural areas." He also advocated federal aid for the purpose. There have been many other writers concerned with this problem (20, 22, 27, 37, 57, 68, 73, 76, 85).

In addition to federal scholarships, removal of discrimination, and federal aid to less wealthy states, other equalizing factors have been advocated such as the community (junior) college to make the first two years of college more readily available (79), worker education within unions and in publicly supported schools (16), and adult education in general (91).

Recognition of Technological Change

Ever-accelerating technological change, most dramatically exemplified by the harnessing of nuclear fission, has received recognition in several programmatic statements. Kahler and Hamburger (48) considered education in relation to the "industrial age." Concerned with the "air age" were reports of two congresses (28, 97). A recognition of the fact that we are living in an "atomic age" was urged by certain writers (3, 35, 67) who recommended that the educational activities entailed be judged in terms of their adequacy to cope with the problems resulting from the discovery of this new source of energy. How educational policies and curriculums should be reshaped to meet this challenge was discussed by other writers (24, 56, 41, 49, 57), who proposed curriculum changes and resource units.

Influence of the Federal Government

Implicit in much of the rethinking of educational goals and in many of the proposals for equalizing educational opportunity is an increased participation by the federal government in reshaping educational policy. Experience with the G. I. Bill of Rights has offered further evidence to many observers of the possibility of federal support of education without federal domination or loss of local autonomy. Proposals for national scholarship and fellowship programs further envisage federal participation in equalizing educational opportunity. Opposition to federal influence has arisen on the part of those who object to advocacy by the President's Commission of the withholding of federal support from institutions that practice racial or religious discrimination. Much concern with educational policy has centered on the possibility that a program of universal military training may be instituted in the near future with profound effects upon American schools at the secondary and higher level (30, 80, 83). The President's Advisory Commission on Universal Training (90) brought out many of the implications of such a program but its support therefor was challenged by an equally thoughtful group of educators and laymen (23).

Concern With General Education

Concern with general education derives from the realization that however wide individual differences may be and however varying the needs of society, there remains a central body of ideas, values, and skills that all

citizens in a free society should possess. Perhaps the increasing concern with general education consists in some part of a reaction against undue emphasis upon individualization of education and upon making the curriculum "functional," the latter having too often resulted in crass and narrow vocationalism. The elective system in colleges and universities was reported as being challenged with increasing frequency (42). The President's Commission on Higher Education (91) had this to say: "The present college programs are not contributing adequately to the quality of students' adult lives either as workers or as citizens. This is true in large part because the unity of liberal education has been splintered by over-specialization" (Vol. I, p. 47). At the secondary level, the problem has been summarized by Caswell (18, p. 256): "For years, especially since the excellent statement of Cardinal Principles of Secondary Education nearly thirty years ago, efforts have been made to relate the high-school program directly to the life young people have to live in our society—to the conditions and problems of homemaking, citizenship, and personal relations. Yet no basic program of general education has been developed, and surveys reveal that, in general, high-school work is of little use to youth in meeting their common problems of living." Representative programs for general education have been formulated by Hook (45), Conant (21), McDonald and McCaskill (57), Tead (85), McConnell (55), and Cushman (25), all since the widely noted Harvard Report (42) and, in part, critical of it. Bergman (12) summarized eleven fairly distinct definitions of general education with illustrative quotations and added a twelfth of his own. Special consideration to general education was given by Lovinger (53) for the curriculum of elementary-school teachers and Dunkel (32) for the humanities. In general, these programs have been characterized by pleas for a judicious mixture of general and special, or vocational, education at all except the highest professional levels. The majority of these programs have contained proposals for recombinations of materials and points of view, recognizable as included under the traditional headings of the physical sciences, biological sciences, social sciences, and humanities. In short, the proposed policies are omitting due consideration of none of these disciplines.

Emphasis on International Understanding

Those concerned with education for international understanding have been beset, especially at present writing, with feelings of urgency and of futility. This urgency stems from the realization, since the bombing of Hiroshima, that civilization can readily destroy itself, and from a feeling of futility that springs from the relative powerlessness of educators to influence the forces that are leading to World War III. In dealing with international understanding, education is confronted with the usual question of the extent to which it can mould society or must instead be moulded by it. "Can the schools build a new social order?" is still a disturbing and

unanswered question. In spite of these feelings, numerous programs have been set forth for achieving better international understanding. Kirkendall and others (51, p. 13) briefly outlined a definition of international understanding in terms of willingness to undertake positive action for raising the economic level of other people, establishing equitable trade arrangements, making mutual compromises and sacrifices. Adam (1) discussed sources of existing material and other methodological problems in increasing international understanding. His emphasis was on private, primary groups such as churches and unions, freed of their social action purposes and concentrating on independent nonpolitical learning.

Hovde (46) outlined a needed program of international education and Townsend (87) discussed instructional material. Matthew (59) and Price (72) discussed the foreign-area curriculums of the armed services and their implications for peacetime education. Some educational implications of Unesco were dealt with by Brumbaugh (17) and Compton (13). Walker (94) described a campus model of the United Nations organized by students and concluded that students at his institution will participate in Unesco rather than conduct further mock UN assemblies. Holland (43) described the goals of the Inter-American Educational Foundation, which, in general, are to develop cooperative educational programs with other republics of the western hemisphere.

Perhaps the most extensive attempt to formulate policy with respect to education for international understanding is that of the National Education Association (62). In this volume many suggestions were presented for acquainting pupils with the structure, mechanisms, and functions of contemporary international relations including, of course, UN and Unesco. Ulich (89), however, challenged the assumptions and "evasions" underlying this publication as follows: (a) the value of religion in achieving better international understanding is neglected; (b) a "realistic analytical understanding of the role of education in a period of transition" is not developed; (c) the dilemma of political realism versus impartial responsibility for the whole of society is not faced; and (d) serious controversies concerning international policy which divide the American people are also disregarded. Ulich's suggestions and recommendations appeared to contain a note of sincere realism which is often absent from discussions of this kind.

Concern with Intercultural Education

The concern with intercultural education noted by the previous review in this cycle has still further increased during the past three years. It has grown not only in survey analyses and proposed programs but also in kinds of action carried out in schools and communities. A number of programmatic approaches may be noted (6, 7, 8, 19, 78, 81, 93). Kilpatrick and VanTil (50) edited a collection of chapters dealing with basic principles of intercultural education for young children, adolescents, and youth—their parents, teachers, adult-sponsored groups, and gangs. Watson (95) dis-

tinguished seven patterns of activity for promoting intergroup cooperation: exhortation, education, participation, revelation, negotiation, contention, and prevention. These were appraised on the basis of Watson's observation of the technics in action. Williams (96) presented the most thorough treatment to date of the research on the reduction of intergroup tensions, systematizing the field in terms of approaches, technics, and hypotheses. He provided an appendix on research approaches and technics and a bibliography of 223 titles that should provide a point of departure for all serious work in this field. Educators should welcome the hard-headed research approach to the evaluation of action as an antidote to the well-meaning but tender-minded and untested-assumptions approach which characterizes the vast exhortative literature on this subject. Brameld (15) analyzed the administrative policies and practices concerning minorities in seven school systems as observed thru visits to them.

Maturing of the Scientific Approach to Student Personnel Work

The scientific approach to student personnel work, which first achieved momentum after World War I, has steadily accelerated in the intervening years. However, much of this work was done on an institutionwide basis or by individual researchers and teachers. Statewide and regional agencies began to appear during the 1920's, and during the 1930's professional testing facilities were made available on a nationwide basis. The period covered by this review has witnessed an accelerated extension of technics and applications. There have been high expectations concerning the transfer of value of the vast armed services psychological research programs from military to civilian life. Grace (39) questioned 163 educators concerning armed forces selection, classification, and training policy as to their applicability for civilian education and also (40) summarized the lessons for civilian education of the armed services' classification procedures. The proposed "testing merger" discussed by Stoddard (83) has since been accomplished. The Educational Testing Service now combines the resources and activities of the College Entrance Examination Board, the Graduate Record Examination, the Cooperative Test Service, the Educational Records Bureau, and the American Council on Education Psychological Examination. Part of these activities are student selection testing programs for various professions (33): medicine, law, engineering, accountancy, teaching, foreign service, and actuarial work. Peterson (71) described such a program for dentistry, and Remmers and Gage (74) reported the results of such a testing program in the field of pharmacy. A major result for educational policy of these extensive testing programs was the development of interinstitutional and professionwide agreement on fundamental problems of curriculum and guidance. The close scrutiny of the program involved in any careful program of achievement testing frequently results in the redirection and reconstruction of the professional curriculums.

Educational policy has further been affected by the development of the General Educational Development Tests, which have provided a means for substituting measured achievement for credit hours or units measured by the clock and the calendar. These examinations have been widely accepted as a basis for granting high-school diplomas. Detchen (29) described these outcomes of the U. S. Armed Forces Institute Examinations with reference to end-of-course, general educational development, high-school level, college level, veterans testing service, and other examinations and procedures. Troyer (88) discussed the content of pupil-personnel records and reports and the critical considerations affecting the scope and use of such records.

Bibliography

1. ADAM, THOMAS R. *Education for International Understanding*. New York: Institute of Adult Education, 1948. 181 p.
2. AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. *The Expanding Role of Education*. Twenty-Sixth Yearbook. Washington, D. C.: the Association, a department of National Education Association, 1948. 484 p.
3. AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. *Paths to Better Schools*. Twenty-Third Yearbook. Washington, D. C.: the Association, a department of National Education Association, 1945. 415 p.
4. AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. *School Boards in Action*. Twenty-Fourth Yearbook. Washington, D. C.: the Association, a department of the National Education Association, 1946. 413 p.
5. AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. *Schools for a New World*. Twenty-Fifth Yearbook. Washington, D. C.: the Association, a department of National Education Association, 1947. 448 p.
6. AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. COMMISSION ON INTERGROUP EDUCATION. *From Sea to Shining Sea*. Washington, D. C.: the Association, a department of National Education Association, 1947. 64 p.
7. AMERICAN COUNCIL ON EDUCATION. *Literature for Human Understanding*. Washington, D. C.: the Council, 1948. 61 p.
8. AMERICAN COUNCIL ON EDUCATION. *Reading Ladders for Human Relations*. Washington, D. C.: the Council, 1947. 67 p.
9. ANDERSON, ARCHIBALD W. "Violations of the Democratic Ideal in Current Conceptions of Administrative Procedure." *Educational Administration and Supervision* 33: 26-34; January 1947.
10. BARR, ARVIL S.; BURTON, WILLIAM H.; and BRUECKNER, LEO J. *Supervision; Democratic Leadership in the Improvement of Learning*. Second edition. New York: D. Appleton-Century Company, 1947. 879 p.
11. BENEDICT, AGNES. *Dare Our Schools Face the Atomic Age?* New York: Hinds, Hayden and Eldredge, 1947. 55 p.
12. BERGMAN, GEORGE J. "Definitions of General Education." *Educational Administration and Supervision* 33: 460-68; December 1947.
13. BODE, BOYD H. AND OTHERS. *Modern Education and Human Values*. Pittsburgh: University of Pittsburgh Press, 1947. 166 p.
14. BRAMELD, THEODORE. *Design for America: An Exploration of the Future of Democracy*. New York: Hinds, Hayden and Eldredge, 1945. 165 p.
15. BRAMELD, THEODORE. *Minority Problems in the Public Schools*. New York: Harper and Brothers, 1946. 264 p.
16. BRAMELD, THEODORE. "Workers' Education in America." *Educational Administration and Supervision* 33: 129-40; March 1947.
17. BRUMBAUGH, AARON J. "What Unesco Proposes To Do." *Educational Record* 28: 45-52; January 1947.
18. CASWELL, HOLLIS L., editor. *The American High School: Its Responsibility and Opportunity*. John Dewey Society. Eighth Yearbook. New York: Harper and Brothers, 1946. 264 p.

19. COLD, STEWART G. AND OTHERS. *Charting Intercultural Education 1945-1955*. Stanford University, California: Stanford University Press, 1946. 58 p.
20. COLUMBIA UNIVERSITY. INSTITUTE OF ADMINISTRATIVE RESEARCH. *Still Unfinished: Our Educational Obligation to America's Children*. Washington, D. C.: National Education Association, 1948. 33 p.
21. CONANT, JAMES B. "Public Education and the Structure of American Society." *Teachers College Record* 47: 145-61; December 1945.
22. COREY, STEPHEN M. AND OTHERS. "The Discovery of Outstanding Talent in Youth." *Teachers College Record* 48: 260-68; January 1947.
23. COUNCIL AGAINST CONSCRIPTION. *An Analysis of the Report of the President's Advisory Commission on Universal Training*. Washington, D. C.: Council Against Conscription, 1947. 28 p.
24. CRARY, RYLAND W. AND OTHERS. *The Challenge of Atomic Energy*. New York: Teachers College, Columbia University, 1948. 92 p.
25. CUSHMAN, C. LESLIE AND OTHERS. "General Education and College Preparation." *Teachers College Record* 48: 225-38; January 1947.
26. DAVIES, DANIEL R. "Norwalk Sets a Precedent." *Teachers College Record* 48: 148-54; December 1946.
27. DAVIS, WATSON. "Federal Support for Postwar Scientific Research and Education." *Educational Record* 26: 281-87; October 1945.
28. DENVER, UNIVERSITY OF. SOCIAL SCIENCE FOUNDATION. *First Denver Congress on Air Age Education*. Denver: University of Denver, Social Science Foundation, 1946. 139 p.
29. DETCHEN, LILY. "The United States Armed Forces Institute Examinations." *Educational Record* 28: 463-86; October 1947.
30. DODDS, HAROLD W. "Compulsory Military Training? No." *Educational Record* 26: 17-26; January 1945.
31. DOLL, RONALD C. "High School Pupils' Attitudes Toward Teaching Procedures." *School Review* 55: 222-27; April 1947.
32. DUNKEL, HAROLD B. *General Education in the Humanities*. Washington, D. C.: American Council on Education, 1947. 321 p.
33. EDUCATIONAL TESTING SERVICE. *Tests and Testing Programs*. Princeton: Educational Testing Service, 1948. 11 p.
34. ELVIRA, SISTER MARY. "Student Opinion on Methods of Teaching." *Educational Administration and Supervision* 32: 74-86; February 1946.
35. EVANS, HUBERT M. "The Challenge of the Atomic Age." *Teachers College Record* 49: 406-14; March 1948.
36. EVANS, HUBERT M. AND OTHERS. *Operation Atomic Vision*. Washington, D. C.: National Association of Secondary-School Principals, a department of National Education Association, 1948. 95 p.
37. FINE, BENJAMIN. *Our Children Are Cheated*. New York: Henry Holt and Company, 1947. 244 p.
38. FRIEDMAN, KOPPLE C. "Utilizing the Community in Curriculum Development." *School Review* 56: 357-60; June 1948.
39. GRACE, ALONZO G. "Sorting Soldiers and Sorting Students." *Educational Record* 27: 158-67; April 1946.
40. GRACE, ALONZO G. AND OTHERS. *Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Service Educational Programs*. Washington, D. C.: American Council on Education, 1948. 264 p.
41. HAND, HAROLD C., editor. "Living in the Atomic Age; A Resource Unit for Teachers in Secondary Schools." *University of Illinois Bulletin* 44: 59; December 3, 1946.
42. HARVARD UNIVERSITY. COMMITTEE ON THE OBJECTIVES OF A GENERAL EDUCATION IN A FREE SOCIETY. *General Education in a Free Society*. Cambridge: Harvard University Press, 1945. 267 p.
43. HOLLAND, KENNETH. "The Program of the Inter-American Educational Foundation." *Educational Record* 27: 80-86; January 1946.
44. HOLLINSHEAD, BYRON S. "The Report of the President's Commission on Higher Education." *American Association of University Professors Bulletin* 34: 257-71; Summer 1948.
45. HOOK, SIDNEY. *Education for Modern Man*. New York: Dial Press, 1946. 237 p.
46. HOVDE, BRYNJOLF J. "A Needed Program of International Education." *Educational Record* 28: Supplement 14-34; January 1947.

47. HUTCHINS, ROBERT M. "The Report of the President's Commission on Higher Education." *Educational Record* 29: 107-22; April 1948.
48. KAHLER, ALFRED AND HAMBURGER, ERNEST. *Education for an Industrial Age*. Ithaca: Cornell University Press, 1948. 334 p.
49. KANE, WILLIAM E. "An Atomic-Age Week." *School Review* 56: 294-98; May 1948.
50. KILPATRICK, WILLIAM H. AND VANTIL, WILLIAM, editors. *Intercultural Attitudes in the Making*. John Dewey Society. Ninth Yearbook. New York: Harper and Brothers, 1947. 246 p.
51. KIRKENDALL, LESTER A.; KUENZLI, IRVIN R.; AND REEVES, FLOYD W. *Goals for American Education*. Chicago: American Federation of Teachers, 1948. 130 p.
52. KOOPMAN, MARGARET O. *Utilizing the Local Environment*. New York: Hinds, Hayden and Eldredge, 1946. 62 p.
53. LOVINGER, WARREN C. *General Education in Teachers Colleges*. Oneonta, New York: American Association of Colleges for Teacher Education, 1948. 119 p.
54. MCCONNELL, THOMAS R. "Problems Involved in Developing a Program of General Education." *Educational Record* 28: supplement 126-42; January 1947.
55. MCCONNELL, THOMAS R. AND OTHERS. "A Comprehensive Nationwide Program of Education for Secondary and Post-Secondary Schools." *Teachers College Record* 48: 201-24; January 1947.
56. MCCOOK, NEBRASKA. *Report of an Investigation; McCook, Nebraska; Administration in a Small Community*. Washington, D. C.: National Commission for the Defense of Democracy thru Education, a commission of National Education Association, 1947. 28 p.
57. McDONALD, RALPH W. AND MCCASKILL, JAMES L., editors. *Current Trends In Higher Education*. Washington, D. C.: Department of Higher Education, a department of National Education Association, 1948. 199 p.
58. MARTIN, WILLIAM H. "Implementing a Democratic Philosophy in Prompting the In-Service Professional Development of Negro Teachers." *Educational Administration and Supervision* 32: 151-58; March 1946.
59. MATTHEW, ROBERT J. *Language and Area Studies in the Armed Services: Their Future Significance*. Washington, D. C.: American Council on Education, 1947. 211 p.
60. MICHIGAN DEPARTMENT OF PUBLIC INSTRUCTION. OFFICE OF VOCATIONAL EDUCATION. *What Michigan People Think About Vocational Education Needs*. Lansing: the Department, 1947. 13 p.
61. MORLEY, EVERITT E. "Democracy in Operation in a High School." *School Review* 56: 290-93; May 1948.
62. NATIONAL EDUCATION ASSOCIATION. *Education for International Understanding in American Schools*. Washington, D. C.: the Association, 1948. 241 p.
63. NATIONAL EDUCATION ASSOCIATION AND AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. EDUCATIONAL POLICIES COMMISSION. *Education for ALL American Children*. Washington, D. C.: the Commission, 1948. 292 p.
64. NATIONAL EDUCATION ASSOCIATION AND AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. EDUCATIONAL POLICIES COMMISSION. *Education for ALL American Youth*. Washington, D. C.: the Commission, 1944. 421 p.
65. NATIONAL EDUCATION ASSOCIATION AND AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS. EDUCATIONAL POLICIES COMMISSION. *Educational Services for Younger Children*. Washington, D. C.: the Commission, 1945. 56 p.
66. NATIONAL EDUCATION ASSOCIATION AND RESEARCH CENTER FOR GROUP DYNAMICS. *First National Training*. Preliminary Report of the Laboratory on Group Development, Bethel, Maine, June 16 to July 4, 1947. Cambridge: Massachusetts Institute of Technology, 1947. 142 p.
67. NATION'S SCHOOLS. "What Studies for the Atomic Age?" *Nation's Schools* 39: 44; April 1947.
68. NORTON, JOHN K. AND LAWLER, EUGENE S. *Unfinished Business in American Education*. Washington, D. C.: American Council on Education, 1946. 64 p.
69. NOVAK, BENJAMIN J. "A Device in Democratic Administration." *Educational Administration and Supervision* 32: 309-12; May 1946.
70. PETERS, CHARLES C. *Teaching High School History and Social Studies for Citizenship Training: the Miami Experiment in Democratic Action-Centered Education*. Coral Gables, Florida: University of Miami Book Store, 1948. 192 p.
71. PETERSON, SHAILER. "The Aptitude Testing Program of the American Dental Association." *College and University* 23: 212-16; January 1948.

72. PRICE, MAURICE T. "Making Foreign-Area Curriculums Feasible." *Educational Record* 28: 429-43; October 1947.
73. REDFIELD, ROBERT AND OTHERS. *Equality of Educational Opportunity*. No. 486. Chicago: University of Chicago Round Table, 1947. 30 p.
74. REMMERS, HERMANN H. AND GAGE, NATHANIEL L. *The Abilities and Interests of Pharmacy Freshmen*. Monograph No. I. Washington, D. C.: American Council on Education, 1948. 63 p.
75. REMMERS, HERMANN H.; ELLIOTT, DONALD N.; AND HOBSON, ROBERT L. *Indiana College and University Staff Evaluation*. Indiana: Purdue University, 1948. 29 p.
76. REYNOLDS, JAMES W. "Extending Secondary Education Vertically." *School Review* 56: 76-84; February 1948.
77. RICHARDS, CYRIL F. "A College Looks Through the Eyes of Its Students." *Educational Administration and Supervision* 32: 278-86; May 1946.
78. SEAMANS, HERBERT L. "Education and Intergroup Relations." *Educational Record* 27: 87-95; January 1946.
79. SEXSON, JOHN A. AND HARBESON, JOHN W. *The New American College; The Four-Year Junior College*. New York: Harper and Brothers, 1946. 312 p.
80. SEYMOUR, CHARLES. "Compulsory Military Training? Yes." *Educational Record* 26: 9-16; January 1945.
81. STANFORD WORKSHOP ON INTERCULTURAL EDUCATION. *Charting Intercultural Education, 1945-55*. Stanford University, California: Stanford University Press, 1946. 58 p.
82. STARR, MARK. *Labor Looks at Education*. Cambridge: Harvard University Press, 1946. 51 p.
83. STODDARD, GEORGE D. "Education and Public Policy." *Educational Record* 28: 362-74; July 1947.
84. STOREN, HELEN F. *Laymen Help Plan the Curriculum*. Washington, D. C.: Association for Supervision and Curriculum Development, a department of National Education Association, 1947. 75 p.
85. TEAD, ORDWAY. *Equalizing Educational Opportunities Beyond the Secondary School*. The Inglis Lecture, 1947. Cambridge, Massachusetts: Harvard University Press, 1947. 54 p.
86. THUT, ISAAC N., editor. "By Way of Comment." *Educational Administration and Supervision* 34: 25-34; January 1948.
87. TOWNSEND, MARY E. "Materials for Education for World Citizenship." *Teachers College Record* 47: 316-22; February 1946.
88. TROYER, MAURICE E. AND OTHERS. "Essential Pupil-Personnel Records." *Teachers College Record* 48: 269-86; January 1947.
89. ULICH, ROBERT. "Education for International Understanding in American Schools: Suggestions and Recommendations." *School and Society* 68: 234-35; October 1948.
90. U. S. PRESIDENT'S ADVISORY COMMISSION ON UNIVERSAL TRAINING. *A Program for National Security*. Washington, D. C.: U. S. Government Printing Office, 1947. 448 p.
91. U. S. PRESIDENT'S COMMISSION ON HIGHER EDUCATION. *Higher Education for American Democracy*. Volumes I-IV. Washington, D. C.: U. S. Government Printing Office, 1947. 309 p.
92. U. S. PRESIDENT'S SCIENTIFIC RESEARCH BOARD. *Science and Public Policy*. Volumes I-V. Washington, D. C.: U. S. Government Printing Office, 1947. 999 p.
93. VICKERY, WILLIAM E. *Intercultural Education in American Schools; Proposed Objectives and Methods*. New York: Harper and Brothers, 1943. 214 p.
94. WALKER, ROBERT A. "The United Nations: A Campus Model Organized by Students." *Educational Record* 28: 420-28; October 1947.
95. WATSON, GOODWIN. *Action for Unity*. New York: Harper and Brothers, 1947. 165 p.
96. WILLIAMS, ROBIN M., JR. *The Reduction of Intergroup Tensions*. New York: Social Science Research Council, 1947. 153 p.
97. WORLD CONGRESS ON AIR AGE EDUCATION. *Proceedings and Abstracts of Speeches, August 21-28, 1946, New York City*. New York: 100 East 42nd Street, Air Age Education Research, 1946. 115 p.

Index to Volume XIX, No. 1

Page citations are made to single pages; these are often the beginning of a chapter, section, or running discussion dealing with the topic.

- Adult attitudes, 59
- Aims of education, 78
- Atomic energy, implications for education, 7, 9, 82
- Attitudes, measurement of, 58; toward Russia, 60
- Audio-visual aids, 63
- Business cycles, 42
- Citizenship education, 25; trends in, 29
- Communism, 6, 8, 21
- Conservation of resources, 11
- Democracy, a moral basis for, 24; and communism, 21; and economics, 10; and education, 21, 80; and the labor movement, 12; experimental approaches to the teaching of, 28; ideals of, 5; institutions of, 5; threats to, 8
- Democratization of educational practices, 80
- Economic life, changes in, 42
- Economic planning, 13, 51
- Education, and social status, 39; as related to economic cycles, 42; for international understanding, 58, 61
- Educational opportunity, 32, 39, 81
- Employment, and the national economy, 48
- Federal support of education, 33, 77, 82
- Finance, and the national economy, 43
- Freedom of the press, 9
- General education, 80, 82
- Health, 39
- Income, by states, 49; national, 49
- Inequalities, 32, 39; and family income, 34
- Intercultural education, 8, 23, 35, 38, 57, 84
- International educational organizations, 67
- International exchange of teachers and students, 65
- International relations, 64
- International understanding, 57, 83; materials for teaching, 62; needed research in, 68; thru cultural exchange, 65
- Labor unions, 12, 39, 47; and educational policy, 23
- Minority groups, 35
- Monopoly, in business, 46
- Needed research, in education for international understanding, 68
- Objectives of education, 78
- Philosophy of history, 14
- Population trends, 11
- Price controls, 45
- Public opinion polls, 22, 59
- Pupil personnel services, 85
- Race relations, 6, 35
- Radio, 9
- Religion, and social class, 37
- Science, and democracy, 7, 8, 13
- Social anxiety, 26
- Social psychology, 22
- Social status, 39
- Socialism, 6
- Teachers unions, 10
- Unesco, 61, 67, 84
- U. S. President's Commission on Higher Education, 10, 33, 78, 83
- U. S. President's Committee on Civil Rights, 9, 32
- World Organization of the Teaching Profession, 67

This issue of the REVIEW was prepared by
the Committee on the Language Arts and the Fine Arts

DONALD D. DURRELL, *Chairman*, Dean and Professor of Education, Boston
University, Boston, Massachusetts

EMMETT A. BETTS, Professor of Psychology and Director of the Reading
Clinic, Temple University, Philadelphia, Pennsylvania

GUY L. BOND, Professor of Education, University of Minnesota, Minne-
apolis, Minnesota

WILLIAM S. LARSON, Chairman of the Department of Music Education,
and Music Psychologist, Eastman School of Music, University of
Rochester, Rochester, New York

EDWIN ZIEGFELD, Head of the Department of Fine and Industrial Arts,
Teachers College, Columbia University, New York, New York

with the assistance of

CLIFFORD P. ARCHER, Professor of Education, University of Minnesota,
Minneapolis, Minnesota

THOMAS H. EAMES, Lecturer in Education, Boston University, Boston,
Massachusetts

HOWARD GILKINSON, Professor of Speech, University of Minnesota, Minne-
apolis, Minnesota

HELEN A. MURPHY, Associate Professor of Education, Boston University,
Boston, Massachusetts

RUSSELL G. STAUFFER, Assistant Director of the Reading Clinic, Temple
University, Philadelphia, Pennsylvania

FOREWORD

BEGINNING with the April 1943 number of the REVIEW dealing with research in the language arts and the fine arts these topics were combined under the title *Language Arts and the Fine Arts*. This issue is the third to follow this type of organization. It brings up to date the research in the areas of reading, language expressional arts, literature, and the graphic and plastic arts for the three-year period since April 1946. In general, the treatment accorded these subjects conforms to that given in the two previous numbers in which the fine arts and the language arts have been combined.

The chapter organization of this issue gives an excellent emphasis to the problems of reading as an acquisitive language skill. It very effectively breaks down the communication skills area treated under a single chapter in the previous number into separate chapters dealing with spelling and handwriting, literature, composition, and speech. In contrast with earlier issues on this topic very little or no emphasis is given to the foreign language fields. It is to be regretted that a combination of circumstances made it impossible to include the chapter dealing with the problems of music instruction. This omission leaves an unfortunate gap in the treatment of a highly important educational area in this issue.

HARRY A. GREENE, *Chairman*
Editorial Board

CHAPTER I

Research in Reading, 1946-1948

DONALD D. DURRELL and HELEN A. MURPHY

IN THE period since the end of World War II research in reading has been resumed with much of its former intensity. The decrease in the number of research studies noted in the April 1946 issue of the REVIEW (p. 102) no longer is evident since many doctoral studies and large-scale researches are reappearing. The three-year period of 1945-1948 brought out new textbooks and revisions of textbooks on the teaching of reading, most of which reflected research results. Among the new textbooks were those of Betts (7), Dolch (18), Gates (23), Harris (31), and McKee (48), which dealt mainly with elementary-school reading instruction. Secondary-school reading instruction was the primary concern of the *Forty-Seventh Yearbook*, Part II, of the National Society for the Study of Education (56), as were the textbooks by Blair (8), and McCullough, Strang, and Traxler (46). Noteworthy contributions to the psychology of reading and reading disabilities were found in books by Carmichael and Dearborn (13), and Robinson (62).

Research in reading continued to be served by the excellent annual summaries of Gray (28, 29). Traxler and Townsend (79) presented a new bibliography of research covering the five-year period prior to 1946. Many suggestions for research in reading were presented by Gates (22) in the January 1947 issue of the REVIEW.

Since 1940 the suspension of publication of the *Bibliographies of Research Studies in Education* (81) has been a serious handicap to the location of unpublished research studies. Unpublished studies constitute the largest research effort in university centers but the lack of publication of such studies does not mean lack of significance. Thru the cooperation of the U. S. Office of Education the chairman of this number of the REVIEW was able to compile a comprehensive list of master's and doctor's studies in the language arts fields since 1940. It is to be regretted that in spite of its great value as a list of unpublished sources this bibliography lacked the analytical and summarizing elements which would justify its inclusion in this number of the REVIEW. This bibliography, which contains 787 titles from 129 institutions, is nevertheless so important that it should be published and made available to research students in the language arts areas.

The published research of the past three years may be classified in the following manner: (a) evaluation of intensive reading programs; (b) special technics in reading; (c) status studies; (d) reading disabilities; (e) textbook analyses; (f) vocabulary studies; (g) measurement of reading ability; (h) reading interests and habits; and (i) visual and related factors in reading. The last of these classifications is treated in Chapter II.

Evaluation of Intensive Reading Programs

The effectiveness of remedial instruction in reading has been well established. Further evidence on this point was found in the studies of Hester (35) and Mitchell (54). Hester reported mean gains of six months in reading ability for 382 children who attended a nine-weeks summer clinic. These elementary-school children were taught in groups of twenty with a program consisting of quick-moving vocabulary games, exercises for special skills, reading about a unit, and free reading. Mitchell's study showed superior gains for 270 elementary-school children who were given varied learning experiences to stimulate reading interests. A junior-high-school reading program for 169 pupils was found by Eklund (19) to produce gains better than the normal expectancy. That high-school pupils maintain reading skills from a developmental reading program was shown by Blayne (9), who did rechecks on fifty pupils in high-school grades. Kay (39) presented evidence of progress in teaching critical reading thru a systematic program to 385 high-school seniors.

There were several reports of successful college reading experiments. Ammons and Hieronymus (2) obtained marked gains in speed of reading with several hundred college freshmen. The average initial rate was 274 words per minute, as compared to a final rate of 508 words per minute. McGann (47) reported rapid improvement in reading ability resulting from weekly lessons with fourteen college students over a period of three months. Sheldon (70), working with nineteen medical-school students for two one-hour periods per week for nine weeks, produced an average gain in speed of eighty-five words per minute and a significant increase in comprehension test scores. The studies of Westover (84) and the Air University (80), reviewed in the following section on special technics in reading, also reported rapid gains in reading speeds. Corresponding gains in marks in college courses are either not reported or not found in most experiments. An exception to this is the study of Kilby (41), in which significantly higher final grade averages were obtained by his experimental group of 110 freshmen than by the control group.

The beneficial effects of intensive reading instruction given to children with low intelligence was shown by the reports of Schmidt (67), Burt and Lewis (10), and Mintz (52). Favorable results of pre-first-grade training for Spanish-American students was reported by Herr (34).

Special Technics in Reading

The evaluation of special technics in reading provides a constant source for experiment and offers new leads to effective reading instruction. Altho there is a tendency for experimenters to attribute all of the gains to a particular technic, ignoring other variables in the instruction, research workers and teachers may discover valuable additions to reading programs thru adaptations of the technics. Buswell (12) provided an evaluation of the nonoral approach to beginning reading as used in the Chicago schools.

He compared the reading achievement of 523 pupils taught by the nonoral method with that of 595 pupils taught by other methods and found that the differences between the two groups were not statistically significant. He observed, however, many respects in which he believed the nonoral method of instruction to be superior.

Many research centers have experimented with tachistoscopic presentation of reading materials. Renshaw (61) summarized forty-two articles indicating the promise of tachistoscopic methods when applied to reading instruction. MacLatchy (49) reported marked gains in achievement when tachistoscopic methods were used in primary reading instruction. Tachistoscopic methods were also credited with rapid gains in first-grade reading in a study by Melcer and Brown (50).

By using tachistoscopic instruction combined with paced reading by a reading rate controller the U. S. Air University (80) produced remarkable gains in reading rate without sacrificing comprehension. In eighteen one-hour periods of instruction the average reading rate of ninety mature Air Force officers was increased from 291 to 622 words per minute. Some individuals obtained average reading speeds of more than 1500 words per minute in reading fiction. The instructional periods began with twelve minutes of tachistoscopic presentation of numbers, words, and phrases followed by practice on the reading rate controller—a device which could be set to move a cover down a page of practice materials at a selected rate. The instruction was entirely individualized, with each officer adjusting the rate of his own needs and increasing it as his skill improved. The relative importance of the tachistoscopic exercises and the rate controller practice was not studied.

A study of controlled eye movements as compared with practice exercises in reading among college freshmen was made by Westover (84). He used three matched groups of forty-five students each. To the first group he presented study-type reading exercises and he gave the same exercises to the second group in a device designed to control eye movements. The third group received no special training in reading. The special instruction was given in two fifty-minute periods a week over a five-week period. The experimental groups did not differ significantly in reading gains, but they were superior to the control group on immediate reading tests and on retests six months later. There were no significant differences between the groups in college marks following the experiment.

In an experiment in which he presented equated word lists to eighteen children, Pulliam (60) found 89 percent mastery of words studied by indented word-card tracing as compared to 44 percent mastery of words presented by flash-cards.

Status Studies

Studies of reading achievement continued to demonstrate both wide variations in ability among children in the same grade and differences

between children of the same mental ability. Smith and Eaton (72) surveyed the reading achievement of 15,000 sixth-grade pupils in Indiana schools and found that 38 percent of the pupils were outside an assumed usual variation of three years within a grade. They found no relationship between reading achievement and any of the identifiable differences in administrative practice. In a survey of reading ability among 2000 third-grade pupils in Omaha schools, Waite (83) reported 34 percent at grade level, 36 percent above grade level, and 30 percent below grade level. The range of reading scores varied from primer to seventh grade. By comparing *Stanford Achievement Reading Test* scores with mental ages derived from *Otis Quick-Scoring Tests of Mental Ability*, Thomas (76) found among 3000 sixth-grade pupils 21 percent reading a year or more above mental age and 13 percent reading a year or more below mental age. Abbott (1) found that IQ's as determined by Otis and Kuhlmann-Anderson tests increased with gains in reading achievement following an intensive reading program with ninth-grade pupils. When intelligence and several other pertinent factors were held constant Aukerman (5) found that differences in reading ability were related to good and poor achievement in eleventh-grade English, history, chemistry, and mathematics. Kottmeyer (43) studied intelligence test results and physical factors of first-grade children in relation to reading achievement. He found that achievement in reading correlated .77 with teacher judgment of readiness for reading, .62 with Metropolitan readiness scores, and .60 with *Detroit First Grade Intelligence Test* scores.

Pugh (59), in an appraisal of silent reading abilities among acoustically handicapped children in fifty-six residential and day schools in all parts of the country, reported that median reading scores for deaf children were consistently lower than median reading scores for hearing children. Severe retardation of the deaf children was found in sentence meaning tests and vocabulary tests but in paragraph reading and study skills their results more nearly approximated those of hearing children. Girls were superior to boys in reading achievement and children in residential schools did better than those in day schools. There were wide individual variations, with some deaf children showing normal reading achievement in relation to years in school.

Reading Disabilities

Robinson (62) reported a most exhaustive study of children with reading disabilities. Each child was examined by medical, neurological, and psychological specialists. Her analysis of the data obtained from a study of thirty cases showed that there was a positive relationship between the severity of reading retardation and the number of anomalies found, that certain anomalies were not directly associated with reading disability, and that the most frequent casual factors were in the social, visual, and emotional areas. She also presented an excellent summary of available research

on causal factors in reading difficulty. Several research workers studied the relationship of emotional factors and reading difficulties. Russell (65) reviewed eleven research studies of this relationship, while Missildine (53) and Wiksell (85) presented clinical studies of emotional maladjustment and reading difficulty. It was found to be difficult to determine whether the emotional problem was the result or the cause of learning difficulties.

Diagnostic technics were outlined by Stauffer (73), who studied associative learning relationships among retarded readers, and by House (37), who presented five case studies of anatomical maturity as related to reading difficulty. Rossignol (64) correlated measures of hearing acuity and speech production with reading performance among primary-grade children. She found that reading performance varied significantly with speech production and that there was a low but positive relationship between hearing acuity and reading achievement. The technics used in this study may be valuable additions to the means available for the construction of diagnostic test batteries. Hildreth (36) suggested possible factors which might be common to difficulties in speech and reading. Wittenborn's findings (86) added to the earlier evidence that hand dominance has little relationship to reading deficiency.

Textbook Analysis

The problems of grade placement of reading material were outlined in a summary of research on readability reported by Gray (29).

Yoakam (88) compared the reading difficulty of readers published between 1930 and 1939 with those published between 1940 and 1945. The grade placement indicated by the publishers of the earlier group of books was more than one year below their grade placement as determined by the Yoakam grade placement method. (Publishers rated their reader textbooks, published between 1940 and 1945, only six-tenths of a year lower than the grade placement analysis of Yoakam showed for them.) Yoakam found, too, that the application of the Lorge scale resulted in a higher grade placement than was obtained by the use of his own technic.

A synthesis of research on grade placement of high-school literature books presented by Painter and Franzen (58) indicated that grade placement for interest generally runs higher than placement for difficulty, although agreement within a range of one grade existed between interest and difficulty placement in 75 percent of the books listed. Miller (51) prepared a comprehension test for each of the Newbery prize books, and from the results of the tests he concluded that the books were more suitable for junior- and senior-high-school students than for elementary-school students.

The vocabularies of twenty preprimers were compared by Sisters Mary Dorothy and Rita Cecile (71). By pairing the readers and making all possible combinations of pairs they found 20 percent of the pairs had a vocabulary agreement of 50 percent while 40 percent vocabulary agreement was reached by 51 percent of the pairs. This similarity of vocabulary

lary was greater than that reported in previous studies. Kearney (40) studied sentence length in forty-two preprimers, thirty-nine primers, and forty-one first readers. The average sentence length was four words for preprimers, five words for primers, and seven words for first readers. From a study of words appearing in third-grade health readers, Berger (6) concluded that the vocabulary control was poor and that much word teaching would be necessary if the readers were to be understood.

The McGuffey readers attracted the interest of Dolch (17) and Estensen (20). Dolch compared the reading difficulty of the first, second, and third grade McGuffey readers with books contained in two typical modern series. The McGuffey readers averaged about one grade higher in difficulty than did the modern corresponding readers when the books were analyzed by reference to Thorndike's word lists. In addition, McGuffey's books contained a much greater number of new words and fewer running words. Estensen analyzed the McGuffey series according to "five types of basic motivation": economic, nationalistic, militaristic, international understanding, and religious. In further comparison of McGuffey readers with modern readers he reported that the modern readers contained less militarism and more international understanding than the McGuffey books and that there was much more religious motivation in the McGuffey series. An analysis of readers by type of motivation was also made by Georgiady (25), who studied opportunities for developing spiritual values from reading textbooks.

Professional opinions about basic reading programs in the middle and upper elementary-school grades were obtained by Russell and Anderson (66). Their summary of 110 replies from persons selected for competence in the field of reading is as follows: most of the persons questioned agreed that readers should contain centers of interest drawn from the curriculum as well as from out-of-school activities; the majority favored the inclusion of exercises and tests within the text; the replies were evenly divided on the question of whether to provide one or two books per grade; they favored an even division between fact and fiction; they desired vocabulary control at least thru the fourth grade; they approved of phonetic analysis and dictionary work; fewer than half of the group favored workbooks; and almost all of them wanted teachers manuals, preferably written in more detail.

Vocabulary Studies

Seegers (69) reviewed selected studies dealing with vocabulary. He classified the studies into two groups, those concerned with difficulty within textbooks and those concerned with how vocabulary grows. He concluded that increasing attention is being paid in vocabulary studies to the depth and variation of meaning of words and to experiences in the environment that affect language growth. Betts (7) provided a thoro review of the development of meaning and sight vocabularies and presented a bibliography of 259 references.

In a study of the relationship between size of vocabulary and social status Schulman and Havighurst (68) classified families into five groups of social status by Warner's method of class analysis and studied the vocabularies of children in each group who were born in the year 1932. They found a correlation of .46 between vocabulary and social status. No reliable differences were discovered between rural and urban children or between boys and girls.

The difficulties of bilingual children with meanings of words in readers were analyzed by Tireman (78) and Rojas (63). Tireman presented 100 words from primary readers to each of eighty-four Spanish-speaking pupils in the fourth grade. Each child was asked to pronounce the word and then to explain its meaning or to use it in a sentence. He found that 46 percent of the words were not understood by the children. Rojas analyzed the form and meaning variations of preprimer and primer words in two basal series. For 332 words in one series 1483 form and meaning variations were used. In the other series 356 words produced 848 variations. She concluded that the materials were too difficult for bilingual children and that materials should be prepared to teach children how to manipulate English words in characteristic structural patterns.

Measurement of Reading Ability

The use of statistical factor analysis of reading ability continued to evoke controversy. While all methods of investigation must be used in the study of reading ability, the usual conflict of opinion resulting from factor analysis may be found in the articles of Davis (15, 16) and Thurstone (77). Harris (32) and Hall and Robinson (30) also attempted to identify various factors in reading comprehension thru statistical analysis.

Artley (4) made a series of intercorrelations among several tests of reading ability and social-studies abilities given to 200 eleventh-grade pupils. He concluded from the relationship found between general and specific reading abilities that pupils would profit from instruction in the specialized reading skills and abilities needed for social studies. Gates (21) presented a correlation study of a battery of reading diagnostic tests, and his results showed variations in correlation which indicated diagnostic values for the tests.

An evaluation of diagnostic tests for ability to read by phrases or by thought units was made by Gates (24). Using a picture-phrase test, a flash-card test, a tachistoscopic test, and a speed of reading test he found the following correlations: flash-card and phrase perception, .89; flash-card and tachistoscope, .90; phrase perception and tachistoscope, .83; reading speed and phrase perception, .71; reading speed and flash-card, .66; and reading speed and tachistoscope, .65. All three types of tests appeared to be useful for diagnosing ability to read by phrases. Courtney, Bucknam, and Durrell (14) reported low correlations between recall from silent reading as measured by multiple-choice tests and recall as measured by oral

or written summaries. They concluded that oral and written summaries are desirable elements in a battery of tests for reading analysis.

Reading Interests and Habits

Since the primary objective of teaching reading is the intelligent use of the abilities learned, a continuing program of evaluation of reading habits and interests is desirable. Several studies of children's reading interests were reported. Norvell (57), in a twelve-year study of 50,000 children in all types of communities in New York State, found literary preferences in the following order: novels, plays, short stories, biographies, essays, poetry, letters, and speeches. Two out of three selections used in the classroom were better liked by girls than by boys. Witty, Coomer, and McBean (87) submitted a questionnaire on children's book choices to nearly 8000 children in elementary schools. They reported that animal stories are favorites in primary grades, with fairy stories next in popularity; that there is a gradual maturing of taste among children in the intermediate grades; and that ten of twenty-four Newbery Prize books and five of eight books receiving Caldecott Awards were listed as favorites by children. Science reading interests of children in grades four, five, and six were found by Von Qualen and Kambly (82) to vary widely. Girls' first choices were living animals, ancient animals, and light. Boys chose ancient animals, transportation, and electricity.

Children who read many comic books were compared in intelligence and in various types of achievement with children who read no comic books. Heisler (33), reporting this study, found no significant differences in intelligence or achievement of the two groups. Arbuthnot (3) summarized both the content of comic strips and favorable and unfavorable criticisms made of them.

The reading interests of secondary-school students were studied by Strang (75). She submitted a questionnaire to pupils in Grades VII thru XII in thirty schools. Some of her findings were as follows: pupils in Grade VII were interested in stories of animals, adventure, and mystery; comics were seldom mentioned after Grade IX; boys liked stories of science, sports, and outdoor life and preferred murder mysteries to love stories; historical novels, travel, and current events interested pupils in the upper grades; interest was shown in teen-agers' life troubles and in vocations and problems of personal adjustment; and most students enjoyed current adult fiction. Husband (38) presented a technic for the evaluation of growth in reading interests of high-school pupils. He found an increase in preference for definite items as compared to ambiguous items of reading as intelligence increased. He concluded that an objective scale of reading maturity could be developed thru the technic followed. Sterner (74) compared radio, motion-picture, and reading interests of high-school pupils to discover whether the medium or the interest had greater attraction for the adolescent. She found a relationship of .72 among interests independent

of media and a relationship of .27 among media independent of interests. Burton (11) presented a copy of the previous day's newspapers to high-school seniors and asked each to check the items he had read. He found that boys' preferences in order were: graphic, comics, war news, sports, and advertising. The order of preference was the same for girls except that they rated sports lower and they also read local and society news.

Adult reading of books was studied by Link and Hopf (45) in an interview survey of 4000 adults. They found that 21 percent of the population did 70 percent of all book reading, with the lower 50 percent of the population reading only 6 percent of the books. Of all books read, 58 percent were fiction and 37 percent were nonfiction. They judged that best-seller lists were an inaccurate indication of the total number of people who read such books. The two major factors in amount of reading were found to be years of formal education and socio-economic status. The National Opinion Research Center (55) interviewed 2000 adults in seventeen cities in regard to their reading habits. Reading was reported as a favorite diversion of two out of five adults. Fifty-six percent of the population reported that they spent an hour or more per day reading the newspaper. A large proportion of those questioned made little use of the library. Kirkpatrick (42) compared the reading of forty-four scientists with forty-eight humanists who replied to questionnaires sent to 300 persons chosen from *American Men of Science*, *Leaders in Education* and the *Directory of American Scholars*. He reported little difference in the reading of the two groups. More scientists admitted they read no books for pleasure (25 percent), than did humanists (10 percent). Both groups depended very heavily upon magazines for information outside their special fields and there were no discernible differences in quality of material or amount read. Gray (27) reviewed the studies on the social effects of reading. Leary (44) also summarized research in reading interests and habits.

Bibliography

1. ABBOTT, E. CARLETON. "Relationships between Variations in Silent Reading Ability and Mental Ability." *Journal of Educational Research* 39: 314-16; December 1945.
2. AMMONS, ROBERT B. and HIERONYMUS, ALBERT N. "Critical Evaluation of a College Program for Reading Improvement." *Journal of Educational Psychology* 38: 449-70; December 1947.
3. ARBUTHNOT, MAY HILL. "Children and the Comics." *Elementary English* 24: 171-83; March 1947.
4. ARTLEY, A. STERL. "General and Specific Factors in Reading Comprehension." *Journal of Experimental Education* 16: 181-86; March 1948.
5. AUKERMAN, ROBERT C., JR. "Differences in the Reading Status of Good and Poor Eleventh Grade Students." *Journal of Educational Research* 41: 498-515; March 1948.
6. BERGER, HERMAN I. "The Difficulty of Third-Grade Health Readers." *Elementary School Journal* 47: 391-95; March 1947.
7. BETTS, EMMETT A. *Foundations of Reading Instruction*. New York: American Book Company, 1946. 757 p.
8. BLAIR, GLENN M. *Diagnostic and Remedial Teaching in Secondary Schools*. New York: The Macmillan Company, 1947. 422 p.
9. BLAYNE, THORNTON C. "Retention of Skills Acquired in Developmental Reading Programs." *School and Society* 63: 37-39; January 12, 1946.

10. BURT, SIR CYRIL L. and LEWIS, R. BERNARD. "Teaching Backward Readers." *British Journal of Psychology* 16: 116-32; November 1946.
11. BURTON, PHILIP W. "Newspaper Reading Behavior of High School Students." *School and Society* 63: 86; February 2, 1946.
12. BUSWELL, GUY T. *Non-Oral Reading: A Study of Its Use in the Chicago Schools*. Supplementary Education Monographs No. 60. Chicago: University of Chicago Press, September 1945. 56 p.
13. CARMICHAEL, LEONARD and DEARBORN, WALTER F. *Reading and Visual Fatigue*. Boston: Houghton Mifflin Company, 1947. 483 p.
14. COURTNEY, DOUGLAS; BUCKNAM, MARGARET E.; and DURRELL, DONALD D. "Multiple Choice Recall versus Oral and Written Recall." *Journal of Educational Research* 39: 458-61; February 1946.
15. DAVIS, FREDERICK B. "A Brief Comment on Thurstone's Note on a Reanalysis of Davis' Reading Tests." *Psychometrika* 11: 249-55; December 1946.
16. DAVIS, FREDERICK B. "The Factorial Composition of Two Tests of Comprehension in Reading." *Journal of Educational Psychology* 37: 481-86; November 1946.
17. DOLCH, EDWARD W. "How Hard Were the McGuffey Readers?" *Elementary School Journal* 46: 97-100; October 1945.
18. DOLCH, EDWARD W. *Problems in Reading*. Champaign: Garrard Press, 1948. 373 p.
19. EKLUND, JOHN M. "Reading Progress through a Guidance Program." *Clearing House* 21: 9-12; September 1946.
20. ESTENSEN, ERNEST V. "McGuffey—A Statistical Analysis." *Journal of Educational Research* 39: 445-57; February 1946.
21. GATES, ARTHUR I. "A Correlation Study of a Battery of Reading Diagnostic Tests." *Journal of Educational Research* 40: 436-77; February 1947.
22. GATES, ARTHUR I. "Frontiers of Research: In Reading." *Journal of Educational Research* 40: 381-88; January 1947.
23. GATES, ARTHUR I. *The Improvement of Reading*. New York: The Macmillan Company, 1947. 657 p.
24. GATES, ARTHUR I. and CASON, ELOISE B. "An Evaluation of Tests for Diagnosis of Ability To Read by Phrases or Thought Units." *Elementary School Journal* 46: 23-32; September 1945.
25. GEORCIADY, ALEXANDER. "Opportunities for the Development of Spiritual Values in the Reading Program." *Elementary School Journal* 46: 437-40; April 1946.
26. GRAY, WILLIAM S. "Progress in the Study of Readability." *Elementary School Journal* 47: 491-99; May 1947.
27. GRAY, WILLIAM S. "The Social Effects of Reading." *School Review* 55: 269-77; May 1947.
28. GRAY, WILLIAM S. "Summary of Reading Investigations, July 1, 1945 to June 30, 1946." *Journal of Educational Research* 40: 401-35; February 1947.
29. GRAY, WILLIAM S. "Summary of Reading Investigations, July 1, 1946 to June 30, 1947." *Journal of Educational Research* 41: 401-35; February 1948.
30. HALL, WILLIAM E. and ROBINSON, FRANCIS P. "An Analytical Approach to the Study of Reading Skills." *Journal of Educational Psychology* 36: 429-42; October 1945.
31. HARRIS, ALBERT J. *How To Increase Reading Ability*. New York: Longmans, Green and Company, 1947. 582 p.
32. HARRIS, CHESTER W. "An Exploration of Language Skill Patterns." *Journal of Educational Psychology* 39: 321-36; October 1948.
33. HEISLER, FLORENCE. "A Comparison of Comic Book and Non-Comic Book Readers of the Elementary School." *Journal of Educational Research* 40: 458-64; February 1947.
34. HERR, SELMA E. "Effect of Pre-First-Grade Training upon Reading Readiness and Reading Achievement among Spanish-American Children." *Journal of Educational Psychology* 37: 87-102; February 1946.
35. HESTER, KATHLEEN B. "Dade County Meets the Reading Problem." *Elementary School Journal* 47: 148-56; November 1946.
36. HILDRETH, GERTRUDE. "Speech Defects and Reading Disability." *Elementary School Journal* 46: 326-32; February 1946.
37. HOUSE, RALPH W. "A Study of Five Pupils Who Needed Help in Reading." *Journal of Educational Research* 41: 47-59; September 1947.

38. HUSBAND, JOHN D. "A Technique for the Evaluation of Growth in Certain Affective Phases of Reading among High-School Pupils." *Journal of Educational Research* 39: 265-71; December 1945.
39. KAY, SYLVIA C. "Critical Reading: Its Importance and Development." *English Journal* 35: 380-85; September 1946.
40. KEARNEY, NOLAN C. "Sentence Length in 121 Representative First-Grade Readers." *Journal of Educational Research* 38: 447-61; February 1945.
41. KILBY, RICHARD W. "The Relation of a Remedial Reading Program to Scholastic Success in College." *Journal of Educational Psychology* 36: 513-34; December 1945.
42. KIRKPATRICK, LEONARD H. "How Narrow Are the Specialists?" *School and Society* 64: 193-96; September 21, 1946.
43. KOTTMEYER, WILLIAM. "Readiness for Reading." *Elementary English* 24: 355-67; October 1947.
44. LEARY, BERNICE E. "What Does Research Say about Reading?" *Journal of Educational Research* 39: 434-44; February 1946.
45. LINK, HENRY C. and HOFF, HARRY. *People and Books: A Study of Reading and Book-Buying Habits*. New York: Book Industry Committee, Book Manufacturers' Institute, 1946. 166 p.
46. McCULLOUGH, CONSTANCE M.; STRANG, RUTH; and TRAXLER, ARTHUR E. *Problems in the Improvement of Reading*. New York: McGraw-Hill Book Company, 1946. 406 p.
47. MCGANN, MARY. "Improving the Scholarship of College Freshmen with Remedial Reading Instruction." *Journal of Educational Psychology* 39: 183-86; March 1948.
48. MCKEE, PAUL G. *The Teaching of Reading in the Elementary School*. Boston: Houghton Mifflin Company, 1948. 622 p.
49. MACLATCHY, JOSEPHINE. "Bexley Reading Study." *Educational Research Bulletin* 25: 141-68; September 1946.
50. MELCER, FANNIE H. and BROWN, BARBARA G. "Tachistoscopic Training in a First Grade." *Optometric Weekly* 36: 1217-19; December 6, 1945.
51. MILLER, LEO R. "Reading Grade Placement of the First Twenty-three Books Awarded the John Newbery Prize." *Elementary School Journal* 46: 394-99; March 1946.
52. MINTZ, ALEXANDER. "Reading Reversals and Lateral Preferences of a Group of Intellectually Subnormal Boys." *Journal of Experimental Psychology* 37: 487-501; November 1946.
53. MISSILDINE, WHITNEY H. "The Emotional Background of Thirty Children with Reading Disabilities with Emphasis on Its Coercive Elements." *The Nervous Child* 5: 263-72; July 1946.
54. MITCHELL, MARY ALICE. "Reading and the Elementary Program." *Journal of Educational Research* 41: 532-40; March 1948.
55. NATIONAL OPINION RESEARCH CENTER. *What, Where, Why Do People Read?* Denver: University of Denver, 1946. 32 p.
56. NATIONAL SOCIETY FOR THE STUDY OF EDUCATION. *Reading in the High School and College*. Forty-Seventh Yearbook, Part II. Chicago: University of Chicago Press, 1948. 318 p.
57. NORVELL, GEORGE W. "Some Results of a Twelve-Year Study of Children's Reading Interests." *English Journal* 35: 531-36; December 1946.
58. PAINTER, HELEN W. and FRANZEN, CARL G. F. "A Synthesis of Research on the Placement of Reading Material in Secondary School Literature." *Journal of Educational Research* 39: 304-306; December 1945.
59. PUGH, GLADYS S. "Appraisal of the Silent Reading Abilities of Acoustically Handicapped Children." *Volta Review* 48: 197-98; April 1946.
60. PULLIAM, ROY A. "Indented Word Cards as a Sensori-Motor Aid in Vocabulary Development." *Peabody Journal of Education* 23: 38-42; July 1945.
61. RENSHAW, SAMUEL. "Visual Perception and Reproduction of Forms by Tachistoscopic Methods." *Journal of Psychology* 20: 217-32; September 1945.
62. ROBINSON, HELEN M. *Why Pupils Fail in Reading*. Chicago: University of Chicago Press, 1946. 257 p.
63. ROJAS, PAULINE M. "Reading Materials for Bilingual Children." *Elementary School Journal* 47: 204-11; December 1946.

64. ROSSIGNOL, LOIS J. *The Relationships among Hearing Acuity, Speech Production, and Reading Performance in Grades 1A, 1B, and 2A.* Contributions to Education No. 936. New York: Teachers College, Columbia University, 1948. 50 p.
65. RUSSELL, DAVID H. "Reading Success and Personality Development." *Elementary English* 25: 73-82; February 1948.
66. RUSSELL, DAVID H. and ANDERSON, MARION A. "Professional Opinions about Basic Reading Programs in the Middle and Upper Grades of the Elementary School." *Elementary School Journal* 46: 81-88; October 1945.
67. SCHMIDT, BERNARDINE G. "Changes in Personal, Social, and Intellectual Behavior of Children Originally Classified as Feeble-Minded." *Psychological Monographs* 60 No. 5: 1-144; 1946.
68. SCHULMAN, MARY J. and HAVIGHURST, ROBERT J. "Relations between Ability and Social Status in a Midwestern Community. IV: Size of Vocabulary." *Journal of Educational Psychology* 38: 437-42; November 1947.
69. SEEGERS, J. CONRAD. "Recent Research in Vocabulary Development." *Elementary English Review* 23: 61-68; February 1946.
70. SHELDON, WILLIAM. "An Evaluation of an Experimental Reading Program for Medical Students." *Journal of Educational Psychology* 39: 298-305; May 1948.
71. SISTER M. DOROTHY and SISTER RITA CECILE. "A Vocabulary Analysis of Recently Published Pre-Primers." *Journal of Educational Research* 40: 116-25; October 1946.
72. SMITH, HENRY L. and EATON, MERRILL T. "Analysis of the Proficiency in Silent Reading of 15,206 Sixth-Grade Pupils in 648 Schools in Indiana." *Bulletin of the School of Education, Indiana University* 21: 1-47; November 1945.
73. STAUFFER, RUSSELL G. "Certain Psychological Manifestations of Retarded Readers." *Journal of Educational Research* 41: 436-51; February 1948.
74. STERNER, ALICE P. *Radio, Motion Picture, and Reading Interests—A Study of High School Pupils.* Contributions to Education No. 932. New York: Teachers College, Columbia University, 1947. 102 p.
75. STRANG, RUTH. "Reading Interests, 1946." *English Journal* 35: 477-82; November 1946.
76. THOMAS, GEORGE I. "A Study of Reading Achievement in Terms of Mental Ability." *Elementary School Journal* 47: 28-33; September 1946.
77. THURSTONE, LOUIS L. "Note on a Reanalysis of Davis' Reading Tests." *Psychometrika* 11: 185-88; September 1946.
78. TIREMAN, LLOYD S. "A Study of Fourth-Grade Reading Vocabulary of Native Spanish Speaking Children." *Elementary School Journal* 46: 223-27; December 1945.
79. TRAXLER, ARTHUR E. and TOWNSEND, AGATHA. *Another Five Years of Research in Reading.* New York: Educational Records Bureau, 1946. 192 p.
80. U. S. AIR FORCE. *The Air University Reading Improvement Program.* Montgomery, Alabama: The Air University, Maxwell Air Force Base, 1948. 44 p.
81. U. S. OFFICE OF EDUCATION. *Bibliography of Research Studies in Education.* Washington, D. C.: Government Printing Office, Biennially 1926-1940.
82. VON QAULEN, VIVIAN D. and KAMBLY, PAUL E. "Children's Interests in Science as Indicated by Choices of Reading Materials." *School Science and Mathematics* 45: 798-806; December 1945.
83. WAITE, WILLIAM H. "The Improvement of Reading in the Omaha Public Schools." *Elementary School Journal* 48: 308-11; February 1948.
84. WESTOVER, FREDERICK L. *Controlled Eye Movements versus Practice Exercises in Reading.* Contributions to Education No. 917. New York: Teachers College, Columbia University, 1946. 99 p.
85. WIKSELL, WESLEY. "The Relationship between Reading Difficulties and Psychological Adjustment." *Journal of Educational Psychology* 41: 557-58; March 1948.
86. WITTENBORN, JOHN R. "Correlates of Handedness among College Freshmen." *Journal of Educational Psychology* 37: 161-70; March 1946.
87. WITTY, PAUL; COOMER, ANN; and McBEAN, DILLA. "Children's Choices of Favorite Books: A Study Conducted in Ten Elementary Schools." *Journal of Educational Psychology* 37: 266-78; April 1946.
88. YOAKAM, GERALD A. "The Reading Difficulty of School Textbooks." *Elementary English Review* 22: 304-309; December 1945.

CHAPTER II

Visual and Related Factors in Reading

THOMAS HARRISON EAMES

DURING the past three years, research literature on the relationship of reading to various skills or defects which might influence reading ability has exhibited two rather marked trends. One was evidenced in the attempt to make a more comprehensive search for physiological factors which might operate as causes or groups of causative factors in reading progress or failure. The other was seen in the appearance of a relatively large number of studies of physical factors underlying readability.

The dividing line between reading failure and reading disability continued to be vague. Eustis (13) and Park (24) both agreed that reading disability was a definite "entity," altho the former called it "specific reading disability" while the latter called it "dyslexia."

Comprehensive Studies of Physical Condition of Reading Failures

Robinson (30) studied thirty retarded readers. Each child was examined by a pediatrician, a neurologist, an ophthalmologist, an otolaryngologist, an endocrinologist, a psychiatrist, a reading specialist, a speech specialist, and a social worker. From the pool of information obtained by these specialists it was shown that pupils most seriously retarded in reading were the ones who presented the most anomalies, altho some of the anomalies were considered to have no direct relationship to reading failure.

Some of the factors that the specialists thought might be causes of reading failure did not prove to be so. However, visual, emotional, and social factors appeared to be the most common causes of reading failure according to this study.

Eames (8) studied a large group of children to determine the effects of ophthalmological and general physical factors on reading ability. He compared 1000 reading failures with 500 ophthalmologic cases and 150 unselected children, all of school age, and found that hypermetropia, exophoria at the reading distance, retarded speed of word recognition, and IQ's below 90 occurred more frequently among the poor readers altho the median amount of defectiveness was not appreciably greater in any one of the groups than in the others. Eames (10) also compared the presence of general diseases and defects in 875 of the same reading failures with those found in 486 nonfailures and found 21 percent more diseases and defects among the group of reading failures.

Professional Ophthalmologic and Optometric Studies of Good and Poor Readers

Krous (19) reported a study in which optometric visual analysis was made of a remedial reading class. Defects and deficiencies were reported to the parents, most of whom cooperated by securing professional care for the children. Fourteen cases received visual service over a two-year period and exhibited an average gain of 10 IQ points, which gain was attributed to the pupils' being relatively better able to read the group tests. They also showed an average increment of 1.9 grades over a two-year period. Park (24), an ophthalmologist, studied 133 cases of dyslexia and reported frequencies of eye difficulties. Some of his conclusions were that fusion deficiency seemed not to be a dominant factor; that there was a high incidence of lack of stereopsis; that phorias were significant, especially exophoria at the reading distance; and that weak ductions, slow recovery ability after diplopia, accommodative or convergence spasm, or heterophoria or convergence insufficiency were associated with half of his cases. His agreement with Eames' (8) study, mentioned previously as to the importance of exophoria at the reading distance, should help to clarify a point on which there has been much difference of opinion. Eames considered only those cases of exophoria (or esophoria) of six or more prism diopters to be important, while Parks' criterion was four prism degrees. Since both of these investigations were made by ophthalmologists using tests and technics which are more discriminating than those of the screening devices commonly used in school testing, their general agreement appears worthy of special mention. Eames (11) reported correlation values between visual acuity and the speed of perception of objects and words. This will be discussed later in this chapter.

Eye Studies Made with Screening Devices

Wirt and others (45) studied 248 pupils in Grades III thru VI. The *Stanford Achievement Test* and the Orthorater, a screening device commonly used in industry for the detection of eye difficulties, were used in making the study. The visual traits of pupils scoring highest on the achievement test were considered as minimum visual requirements for successful achievement. The visual requirements were deemed to involve near acuity, color vision, and near vertical phoria posture.

Evaluation of Tests Involving Vision

Wirt and others (45), Krous (19), and Kelley (18) pointed out the inadequacies of the *Snellen Test of Visual Acuity*, which has been widely used in the schools to detect eye difficulties. The studies by Wirt and Krous have been described in previous paragraphs. Kelley based her conclusions on a study of the reading progress of thirty-six cases of school children who had been referred to a school adjustment clinic.

Anderson and Morse (2) reviewed several studies of the reliability of photographic records of eye movements in reading and concluded that such records are reliable if passages of about twenty lines are used. Ledbetter (20) was in general agreement on this subject. He expressed the opinion that a selection of 200 words or more provided a fairer test of student abilities when film records were used.

Spache (32) presented a further study of his *Binocular Reading Test*, in which the pupil reads a selection thru a stereoscope so arranged that both eyes must work simultaneously if the correct story is read. If one eye is inhibited for some reason, the words which are presented to that eye alone are not seen and the story is changed by their omission. He tested twenty-three pupils and compared the results on the *Binocular Reading Test* with those secured from *Gray's Oral Reading Test* and the oral recall part of the *Durrell Analysis of Reading Difficulty*. Results were comparable. He concluded that the determination of eye preference by this means was justified, as was the attempt to relate this preference to the child's monocular and binocular reading skills.

Studies of Visual Perception in Reading

By means of a high-speed projection tachistoscope, Eames (12) studied the speed of object recognition and the speed of word recognition in a group of 254 reading failures and compared the scores made by them with those made by a control group of seventy-five pupils who were passing in all subjects. The speed of object recognition was the same for both groups but the speed of word recognition was much slower among the reading failures. Distribution by age levels disclosed no difference in the speed of object recognition at any age level in either group, although the speed of word recognition was slower at all age levels in the reading failure group. The passing group exhibited a sharp regression at the eleventh year with recovery at the eleventh year. The failing group also displayed a similar regression but did not recover from it until the thirteenth year. It was considered possible that these regressions were due to the shift from oral to silent reading at about the tenth year and that the passing group was better able to adjust to the regression than was the failing group. Eames (11) also reported a positive correlation of .32 between Snellen visual acuity measurements and the speed of picture recognition, and of .46 between the visual acuity measurements and the speed of word recognition.

Stroud (33) gave the *Chapman-Cook Speed of Reading Test* and six others to 570 pupils in Grades IV thru VI. On the basis of his results he concluded that a significant relationship exists between the rate of visual perception and the rate of reading. It was pointed out that there is a lower relationship between the rate of reading and the discrimination of paired digits. Sutherland (34) investigated the relationship between perceptual span and rate of reading of 125 university students and the effect of

training upon perceptual span in 119 subjects. Two tests of reading rate were used and the perceptual span was measured by a tachistoscope. Positive correlation between perceptual span and rate of reading varied from .31 to .37 and perceptual span correlated with rate of perception at .70. The training part of the experiment led to the conclusion that successful training for perceptual span may improve rates of reading and perception.

Renshaw (29) experimented with 100 first-grade pupils to determine progress in learning to read with tachistoscopic training. The claim was made that such training enlarged the form fields in the vertical and horizontal meridians. Melcer and Brown (22) studied 150 first-grade pupils, dividing them into two groups of seventy-five each, one of which was given tachistoscopic training while the other was not. At the beginning the experimental group ranked somewhat lower than the other. Later tests disclosed superiority of the group that received tachistoscopic training. Pupils in this group made fewer reversals of letters than did pupils in the control group. Applying Renshaw's theories, MacLachy (21) studied the value of visual-form training in reading in a group of first- and second-grade pupils. Tachistoscopic technics were used among others and better than average progress was reported. However, she did not show how much of the progress was due to the visual-form training and how much was due to the other technics used in the experiment.

Studies of Eye Movements in Reading

Tinker (41) reviewed 126 eye-movement studies and pointed out that many unqualified individuals without adequate background in experimental procedures or in the psychology of reading have done research in eye movements with deplorable results. He also emphasized the fact that exploitation of the eye-movement technic has accentuated peripheral determinants of reading proficiency. It was stated that the eye-movement camera should be considered to be a research rather than a clinical instrument. Ledbetter's study (20) of the eye movements of eleventh-grade pupils was mentioned earlier in this chapter in the section on the evaluation of tests involving vision. She conducted an experiment with sixty eleventh-grade pupils in which they read selections of comparable length from four subject-matter fields while their eye movements were recorded photographically. She concluded that meanings or concepts are more difficult for the average student than vocabulary, sentence structure, or sentence length. It was also noted that the students' best orientation was in the second hundred words, which fact would seem to imply that selections of 200 or 300 words should be used in such tests. A positive but not high correlation was found between speed and comprehension. Westover (44) used a specially-developed machine to control eye movements but its use did not produce significantly better results than did the same reading exercises when used alone. The study involved three groups of college freshmen. The first group, numbering forty-five students, had two fifty-five

minute practice periods a week in which they read and took tests on Strang's study type of reading exercises; the experimental group, numbering forty-five students, had the same amount and kind of exercises as the first group but did their reading by means of the eye-movement controlling device; and the third group, numbering fifty students, performed no special reading exercises.

Brandt (5) reported on his development of a bidimensional eye-movement camera for recording fixations and eye movements of a subject while he reads, looks at pictures, or works problems. With this camera Brandt made numerous studies in a number of fields, including an experiment with a group of seven-year-old pupils whose eye movements were recorded as they looked at a page on which were printed pictures and related sentences. These seven-year-old pupils tended to move their eyes to the left of the page for the initial fixation and then to move them to the right. In reading the sentences these children averaged 6.5 fixations per line.

Two somewhat contradictory studies of eye movements during long periods of reading were reported. Using an electrical device for recording eye movements, Hoffman (17) studied thirty students who read for four hours under more or less normal conditions. He found that the number of fixations and the number of lines read decreased after the first half hour. After one hour of reading the number of blinks increased together with further changes in various eye movements. It was concluded that individual differences and time are important factors influencing eye-movement performance. Carmichael and Dearborn (6) used electrical devices to study visual fatigue in reading. These devices enabled them to take simultaneously electrocardiographic, electroencephalographic, and electro-oculographic (eye-movement) tracings. About forty students of high school and college levels served as subjects and read continuously for six hours. The extent of their comprehension was estimated by means of a questionnaire that was given at the end of about every twenty-five pages of reading matter. Half of the subjects read from printed books while the other half read the same material from microfilm copies. Quickly administered stereoscopic tests of visual acuity and stereoscopic acuity were given before and after the reading period. Emphasis was placed on eye movements, speed of reading, and comprehension. The records showed no significant change in any of the factors involved in reading performance. A comparison with Hoffman's study (17) revealed that, whereas Carmichael and Dearborn checked comprehension, Hoffman did not. It may be assumed that Hoffman's subjects may not have been as highly motivated as were other subjects to keep up their performance and may have yielded more readily to fatigue. Both studies are open to the criticism that they relied heavily on performance factors which are notoriously insensitive as means for measuring fatigue. The Carmichael and Dearborn study made use of simple visual tests to avoid tiring the eyes and interfering with other test results. A more complete study of eye factors would have been desirable if it could have been arranged.

A study of fatigue which did not involve eye-movement measurements or recordings was that of Anderson and Meredith (1). Like those of Hoffman and Carmichael and Dearborn, it leaned rather heavily on performance. Twenty students participated in the experiment. Those who wore glasses used them during the reading periods. Each subject read for two hours from a book and for two hours from a microfilm image projected on the ceiling. Among the results it was reported that the average rate of reading either book or microfilm increased thruout the reading period. The average rate of reading the book was about 12 percent faster than was that of reading the microfilm. Insofar as decrement of performance was concerned no real evidence of fatigue was disclosed for the reading of either the book or the microfilm.

Studies of the Relationship of Lateral Dominance to Reading

Mintz (23) studied the handedness, sighting preference, and reading performance of ninety-five intellectually subnormal boys. His results opposed Orton's theory of bilateral memory traces of visual shapes and lack of cerebral dominance as prominent factors in the etiology of reading disability.

On the basis of the study of twenty-three children with "specific reading disability," which is said to be a definite entity usually associated with ambidexterity and speech defects in patients and their families, Eustis (13) concluded that speech defects, lefthandedness, and ambidexterity are not causes of the condition. He reported that crossed laterality and amphiocularity appear to occur about as often among normal children as among those with specific reading disability and are probably not causes of the children's failure to learn to read. Teaching such children to read, write, and spell by kinesthetic and phonetic methods was advocated. Wittenborn (46) studied entering freshmen at Yale in connection with the regular program of giving general reading tests. He concluded that ambidexterity and confused or indeterminate handedness seemed to have little or no significance in connection with language facility. He stated that a tendency to favor the left hand might be a slight handicap but he considered the handicap to be more apparent in the mathematical sphere. Blau (4), on the other hand, presented evidence in support of the proposition that lateral dominance is important to the language function.

Pediatric Studies Involving Reading

Harrell (16) studied the effects of thiamin (Vitamin B₁) on learning done by 120 children. Half of the children were given two milligrams of thiamin daily while those who comprised the control group were given placebos. She investigated the effect which these additions to the children's diet had on visual acuity, games, reading ability, reaction time, arithmetic, rote memory, recall of learned material, educational achievement, intelligence, height, weight, and incidence of colds. The

results of the study led Harrell to the conclusion that changes resulting from the thiamin supplement were not great enough to be noted over short periods in all measures of performance. However, slight gains in the thiamin-fed group were observed. At the end of one year they showed a slightly superior gain in Metropolitan reading and vocabulary scores and in other sections of the test. In the second year a somewhat similar gain in the total grade scores on the *Metropolitan Achievement Test* was reported.

Eames (10) investigated the incidence of general diseases and defects among 875 reading failures and 486 nonfailures, and found 21 percent more physical defectiveness and disease among the former. In general there was a tendency for this group to present higher frequencies of the various defects and diseases as well as a greater diversity of them than did the nonfailures. Eames (9) continued a previous study in which the incidence of premature birth was found to be greater among persons who were reading failures than among the general population. Reading failures who had been premature at birth were also found to exhibit more neurological trouble, visual defects, and certain lateral-dominance variations than were reading failures who had been full term at birth. One hundred fifty-five prematurely born children, including those of the previous study, were compared with 439 children born at full term. The premature group exhibited a higher frequency of defective vision at all ages from five thru seventeen and a poorer median visual acuity thru the ninth year. Apparently there is a tendency for visual deficiency among premature children to persist into the middle grades.

Visual-Motor Performance and Reversals in Reading

Fabian (14) made a study of vertical rotation and its relationship to reversals in reading. It involved 586 children, ranging in grade placement from kindergarten thru the third grade. The tendency to rotate horizontal configurations to a vertical position was found among normal children of preschool and beginning school ages. This developmental phenomenon was said to be corrected gradually in the process of maturation and to persist until the age of seven or eight. Symbol and word reversals were found to be related to verticalization and the author advised that visual-motor tests be given early in the reading program to detect verticalization tendency.

Studies of Readability

A number of studies of readability were made using blink rate as an indicator of readability, despite the fact that its value as an indicator has been seriously questioned. Bitterman and Soloway (3) compared the frequency of blinking and heart rate in a group of ten subjects who read both with and without distractions. No significant differences in performance were found. It was concluded that blink rate bears no relationship to the difficulty of the task. Tinker reported two studies, one of the re-

liability of blinking frequency as a measure of readability (37), the other of the validity of the frequency of blinking as a criterion of readability (41). He found that altho there was a reasonably good reliability coefficient from one fifteen-minute period to another, reliability fluctuated close to the level of undesirable inconsistency when fifty minutes intervened between periods of reading. The validity study was made with sixty student subjects. He found no significant difference in rate of blinking while reading lower case or all capital material. The conclusion drawn was that the frequency of blinking was not a satisfactory criterion of reading ability for print. The author favored rate of reading as a fairly reliable index of readability. Tinker (38) used the blink rate in a study of readability of book print and newsprint. Fewer blinks occurred while the subjects were reading the latter, which fact he interpreted as meaning that the blink technic appeared not to be valid as a means of measuring the ease of seeing.

Several studies of readability were concerned with typography. Tinker and Paterson (42) investigated the effect of line width and leading on the readability of newspaper type and reported that they found an 18-pica line width with one or two points of leading most readable. Later Paterson and Tinker (26) reported a study of the influence of leading on the readability of newspaper type and concluded that one-point leading was most readable as shown by speed of reading records and readers' judgments. The same authors (25) experimented with the effect of typography on the perceptual span in reading. The measures compared included pause duration; frequency of fixation; and words, picas, and characters per fixation. Typographical variation was found to be an important factor in perceptual span in reading. They appeared to believe that optimum typography favors a large perceptual span.

Tinker and Paterson (43) also studied the readability of mixed type forms and found that their subjects read two medley arrangements of type from 8 percent to 11 percent slower than they read a uniform arrangement of excelsior seven-point type. They also investigated the readability of newspaper headlines printed in capitals and in lower-case type (27). The use of capitals and lower-case printing was found to provide word forms which act as cues for accurate and rapid reading. The use of capitals alone was discouraged. A further study was concerned with the relative readability of newsprint and book print (28). Paterson and Tinker found that both kinds of newsprint studied were read significantly slower than was book print. Ten-point book print and eight-point newsprint were judged to be equally legible. Seven-point newsprint was deemed to be far less legible than the larger type. Chall (7) and Gray (15) reviewed advancements in the study of readability and concluded that much remained to be learned about the subject. No present criterion appears to fulfil all of the requirements.

Studies of the Effect of Illumination on Reading

Tinker (37) investigated the illumination preferences of sixty subjects whose judgments were made on the basis of ease and comfort in reading.

At the first sitting the subjects were adapted to an illumination of twenty foot-candles and were then given a choice between this and five other intensities. The second sitting was conducted in the same manner except that the subjects were initially adapted to an illumination of fifty foot-candles. The subjects tended to prefer intensities at or above the one to which they had been adapted. The conclusion drawn was that subject preference for intensities of illumination for reading is not a satisfactory basis for prescribing illumination standards for individuals. Rose and Rostas (31) studied the effect of changes in illumination from two to fifty-five foot-candles on reading rate and comprehension scores. They found no measurable change in the speed of reading with increase in illumination, altho a slight increase in comprehension was observed. Wide individual differences were noted.

Miscellaneous

Tinker (36) investigated the effect on perception in reading of vibration of copy and found that vibration reduced the speed of perception in reading about 5 percent. He also reported on the cumulative effect of marginal conditions on the rate of perception in reading (35). Marginal conditions were those at which the rate of reading was not retarded significantly but beyond which it would be. The marginal conditions were found to be eight-point italic type read under three foot-candles of illumination. It was found that the combination of these marginal conditions produced a nonoptimal visual task.

Bibliography

1. ANDERSON, IRVING H. and MEREDITH, CAMERON W. "The Reading of Projected Books with Special Reference to Rate and Visual Fatigue." *Journal of Educational Research* 41: 453-60; February 1948.
2. ANDERSON, IRVING H. and MORSE, WILLIAM C. "The Place of Instrumentation in the Reading Program: I. Evaluation of the Ophthalm-O-Graph." *Journal of Experimental Education* 14: 256-62; March 1946.
3. BITTERMAN, MORTON E. and SOLOWAY, ESTA. "The Relation between Frequency of Blinking and Effort Expended in Mental Work." *Journal of Experimental Psychology* 36: 134-36; April 1946.
4. BLAU, ABRAM. *The Master Hand*. Research Monograph No. 5. New York: American Orthopsychiatric Association, 1946. 206 p.
5. BRANDT, HERMAN F. *The Psychology of Seeing*. New York: Philosophical Library, 1945. 240 p.
6. CARMICHAEL, LEONARD and DEARBORN, WALTER F. *Reading and Visual Fatigue*. Boston: Houghton Mifflin Company, 1947. 483 p.
7. CHALL, JEANNE S. "This Business of Readability." *Educational Research Bulletin* 26: 1-13; January 15, 1947.
8. EAMES, THOMAS H. "Comparison of Eye Conditions among 1000 Reading Failures, 500 Ophthalmic Patients and 150 Unselected Children." *American Journal of Ophthalmology* 31: 713-17; June 1948.
9. EAMES, THOMAS H. "Eye Conditions among Children of Premature, Full Term and Hypermaternal Birth." *American Journal of Ophthalmology* 29: 57-63; January 1946.
10. EAMES, THOMAS H. "Incidence of Diseases among Reading Failures and Non-failures." *Journal of Pediatrics* 33: 614-17; November 1948.

11. EAMES, THOMAS H. "Relationship between Visual Acuity and the Speeds of Picture and Word Recognition." *Columbia Optometrist* 21: 1-7; May 1947.
12. EAMES, THOMAS H. "The Speed of Object Recognition and of Word Recognition in Groups of Passing and Failing Pupils." *Journal of Educational Psychology* 38: 119-22; February 1947.
13. EUSTIS, RICHARD S. "Specific Reading Disability." *New England Journal of Medicine* 237: 243-49; August 21, 1947.
14. FABIAN, ABRAHAM A. "Vertical Rotation in Visual-Motor Performance: Its Relationship to Reading Reversals." *Journal of Educational Psychology* 36: 129-54; March 1945.
15. GRAY, WILLIAM S. "Progress in the Study of Readability." *Elementary School Journal* 47: 491-99; May 1947.
16. HARRELL, RUTH F. *Further Effects of Added Thiamin on Learning and Other Processes*. Contribution to Education No. 928. New York: Teachers College, Columbia University, 1947. 102 p.
17. HOFFMAN, ARTHUR C. "Eye Movements during Prolonged Reading." *Journal of Experimental Psychology* 36: 95-118; April 1946.
18. KELLEY, EMALINE L. "An Analysis of Reading Progress in Relation to Vision." *Columbia Optometrist* 20: 2-3; May 1946.
19. KROUS, GEORGE T. "Visual Analysis Investigation as Part of a Reading Program." *Twelfth Yearbook 1947*, Claremont Reading Conference. Claremont, California: Claremont College Curriculum Laboratory, 1947. p. 66-71.
20. LEDBETTER, FRANCES G. "Reading Instruction for Varied Types of Subject-matter: An Analytic Study of the Eye Movements of Eleventh-Grade Pupils." *Journal of Educational Research* 41: 102-15; October 1947.
21. MACLATCHY, JOSEPHINE. "Bexley Reading Study." *Educational Research Bulletin* 25: 141-68; September 18, 1946.
22. MELCER, FANNIE H. and BROWN, BARBARA G. "Tachistoscopic Training in the First Grade." *Optometric Weekly* 36: 1217-19; December 6, 1945.
23. MINTZ, ALEXANDER. "Reading Reversals and Lateral Dominance Performances in a Group of Intellectually Subnormal Boys." *Journal of Educational Psychology* 37: 487-501; November 1946.
24. PARK, GEORGE E. "Reading Difficulty (Dyslexia) from the Ophthalmic Point of View." *American Journal of Ophthalmology* 31: 28-34; January 1948.
25. PATERSON, DONALD G. and TINKER, MILES A. "The Effect of Typography upon the Perceptual Span in Reading." *American Journal of Psychology* 60: 388-96; July 1947.
26. PATERSON, DONALD G. and TINKER, MILES A. "Influence of Leading upon Readability of Newspaper Type." *Journal of Applied Psychology* 31: 160-63; April 1947.
27. PATERSON, DONALD G. and TINKER, MILES A. "Readability of Newspaper Headlines Printed in Capitals and in Lower Case." *Journal of Applied Psychology* 30: 161-68; April 1946.
28. PATERSON, DONALD G. and TINKER, MILES A. "The Relative Readability of Newspaper and Book Print." *Journal of Applied Psychology* 30: 454-59; October 1946.
29. RENSHAW, SAMUEL. "The Visual Perception and Reproduction of Forms by Tachistoscopic Methods." *Journal of Psychology* 20: 217-32; October 1945.
30. ROBINSON, HELEN M. *Why Pupils Fail in Reading*. Chicago: University of Chicago Press, 1946. 258 p.
31. ROSE, FLORENCE C. and ROSTAS, STEVEN M. "The Effect of Illumination on Reading Rate and Comprehension of College Students." *Journal of Educational Psychology* 37: 279-92; May 1946.
32. SPACHE, GEORGE. "The Validity of the Binocular Reading Test." *Journal of Educational Research* 41: 461-66; February 1948.
33. STROUD, JAMES B. "Rate of Visual Perception as a Factor in Rate of Reading." *Journal of Educational Psychology* 36: 487-98; November 1945.
34. SUTHERLAND, JEAN. "Relationship between Perceptual Span and Rate of Reading." *Journal of Educational Psychology* 37: 373-80; September 1946.
35. TINKER, MILES A. "Cumulative Effect of Marginal Conditions upon Rate of Perception in Reading." *Journal of Applied Psychology* 32: 537-40; October 1948.
36. TINKER, MILES A. "Effect of Vibration upon Reading." *American Journal of Psychology* 61: 386-90; July 1948.
37. TINKER, MILES A. "Effect of Visual Adaptation upon Intensity of Illumination Preferred for Reading with Direct Lighting." *Journal of Applied Psychology* 29: 471-76; December 1945.

38. TINKER, MILES A. "Readability of Book Print and Newsprint in Terms of Blink-Rate." *Journal of Educational Psychology* 39: 35-39; January 1948.
39. TINKER, MILES A. "Reliability of Blinking Frequency Employed as a Measure of Readability." *Journal of Experimental Psychology* 35: 415-24; October 1945.
40. TINKER, MILES A. "The Study of Eye Movements in Reading." *Psychological Bulletin* 43: 93-120; March 1946.
41. TINKER, MILES A. "Validity of Frequency of Blinking as a Criterion of Readability." *Journal of Experimental Psychology* 36: 453-60; October 1946.
42. TINKER, MILES A. and PATERSON, DONALD G. "Effect of Line Width and Leading on Readability of Newspaper Type." *Journalism Quarterly* 23: 307-309; September 1946.
43. TINKER, MILES A. and PATERSON, DONALD G. "Readability of Mixed Type Forms." *Journal of Applied Psychology* 30: 631-37; December 1946.
44. WESTOVER, FREDERICK L. "Controlled Eye Movements in Reading." *Teachers College Record* 47: 463-64; April 1946.
45. WIRT, S. EDGAR; MORGAN, CLELLAN L.; and FLOYD, WILLIAM. "Achievement of Grade School Pupils in Relation to Visual Performance." *Twelfth Yearbook 1947. Claremont Reading Conference. Claremont, California: Claremont College Curriculum Laboratory, 1947. p. 59-66.*
46. WITTENBORN, JOHN R. "Correlates of Handedness among College Freshmen." *Journal of Educational Psychology* 37: 161-70; March 1946.

CHAPTER III

Research in Spelling and Handwriting

RUSSELL G. STAUFFER

Spelling

A REVIEW of the studies in spelling reported since September 1945 indicates continued attention to (a) words to be taught, (b) investigations of achievement, (c) methods of teaching, and (d) the interrelatedness of basic language skills. This summary briefly reviews, in the order named, studies reported in each of these areas.

It seems appropriate again to direct attention to Horn's summary of research in spelling presented in *The Encyclopedia of Educational Research* (14). Among other things he particularly stressed the need for research concerned with the aspects of learning. He also urged the skilful incorporation of present knowledge into classroom practice.

Other reports on spelling were presented in the REVIEW in April 1940 by Horn, in April 1943 by Smith, and in April 1946 by Knowler. The selected references in spelling published in the *Elementary School Journal* in October of each year and in *School Review* in February of each year were helpful in preparing this summary.

Words To Be Taught

Interest in providing instruction in spelling wherever the need appears has encouraged studies at the secondary level. Ayer (2), in a frequency study of words listed in twelve high-school spellers used in the state of Texas, found many shortcomings in the texts. Little agreement concerning words to be learned was evident in the different spellers. As a result, Ayer (1) selected and organized a list of words to be used for students beyond elementary-school age. The list includes three sets of words: a basic word list, a practical list, and a special group. His basis for selection of words to be placed in these groups included (a) a series of spellers, (b) summary spelling vocabulary lists, (c) vocabulary lists of words commonly used in writing and reading, and (d) certain vocabulary studies concerned with special subject interests.

Words to be studied in spelling are usually obtained from two sources: (a) writing done by adults and (b) that done by children both in and out of school. An extensive study of writing done in school by children and made available by many teachers thruout the United States led to a tabulation of 6,012,359 running words by Rinsland. He published an analysis of the vocabulary of elementary school pupils (20) containing 14,571 words that were used three or more times. Evidence is accordingly provided of the words that the children wrote on different occasions. The value of such a list in determining what words to teach in spelling is significant. The

attention given to the list by Hildreth (12, 13) and Fogler (4) is an indication of its use.

Hildreth (13) directed attention to the chief objective in spelling instruction which is to teach pupils to spell correctly in their everyday writing. She used the Rinsland vocabulary study to point up the fact that only about 2800 of the 25,632 words contained in this vocabulary warrant teaching because of the frequency with which they are used. She also called attention to the fact that it is the seldom used but occasionally needed words that present spelling difficulties. Again using the Rinsland word study, she prepared an alphabetical word list to aid teachers in individualizing instruction (12).

Fogler (4) found from studying the Rinsland list that ten words comprised almost 25 percent of all the words Rinsland reported; twenty-five words, more than 36 percent; fifty words, almost 40 percent; and 100 words, over 52 percent. He concluded that the 618 words tabulated 1000 times or more in the Rinsland study might serve as a basic vocabulary for elementary-school children.

Investigations of Achievement in Spelling

The use of tests as a part of the instructional program in spelling is most valuable. Employing standardized tests for survey purposes is particularly useful but evidences limitations when used to guide and appraise spelling instruction. An extensive testing program was conducted by Fox (5) and by Fox and Eaton (6) in the state of Indiana. The project was reported in two parts including data from Grades II thru VIII in all participating city schools and in township schools. The purpose of the writers in conducting the experiment was to analyze and appraise spelling ability and to determine the extent to which certain factors correlate with spelling ability. The authors recognized the fact that so large a mass of data may obscure or distort true conditions. In general they found that according to their criterion of normal achievement approximately 50 percent of all the pupils tested were retarded. The percentage method of making comparisons was used and results were analyzed accordingly. Results of the experiment indicated that the best spelling was done in schools in which spelling was taught five days a week, that the optimum length of the spelling period was twenty minutes, that only certain spelling rules should be emphasized, and that spelling should be checked in all written work done by the students. Findings for both city and township schools were very similar.

The need for systematic instruction in spelling at all levels continued to receive attention. Harris (10) conducted a study which appraised levels of spelling achievement among junior- and senior-high-school students. He administered sampling type tests totaling 195 words—selected from a graded word list—to 1235 pupils enrolled in Grades VII to XII. The test procedure was to have the pupil write the word in an appropriate blank

space in a sentence setting. The following conclusions were made in accordance with the criteria of achievement established: (a) average achievement of seventh-grade pupils was high third or fourth grade; of eighth-grade students, fourth or fifth grade; of ninth-grade students, fifth or sixth grade; of tenth-grade students, sixth or seventh grade; and of eleventh- and twelfth-grade students, seventh grade; (b) lack of progress in achievement paralleled discontinuance of systematic instruction; and (c) individual spelling achievements varied widely.

Harris (9) discussed the problem of adjusting individual items which test the recognition of misspelled words to established levels of difficulty. He concluded that difficulty levels can be predicted for items by using a scale-value technic.

Appropriate utilization of the findings of research in instructional procedures was found to indicate improvement in spelling competency. A survey was made by Sifferd (23) comparing results obtained thirty years ago by using the Buckingham extension of the *Ayres Spelling Scale* with those obtained by presentday utilization of the scale. Results indicated higher percent correct scores for the pupils in the earlier study, a fact which is no special indictment of modern spelling vocabulary or teaching methods.

Among the aspects of learning which are in need of research are recall, overlearning, and distribution of learning. A study by Stegeman (24) was concerned with the rate of forgetting. He found, among other things, that instruction in spelling should be on an individual basis and should be geared to each person's "rate of forgetting."

Wesman (26) conducted a study concerned with the validity obtained by using correctly spelled and incorrectly spelled test items in the construction of recognition-type spelling tests. Higher coefficients of correlation were obtained on the average with the incorrectly spelled forms. This finding is in agreement with present test construction practices. It was noted, however, that a large number of words are useful when the forms are correctly spelled and that these words contribute to the efficiency of a test.

Whether children's spelling abilities as evidenced in test situations transfer to written work is a question that is of considerable concern to educators. In a study related to this problem Robbins (21) selected 287 words for intensive analysis at the second- and third-grade levels. When she compared the percentages of error with which these words were spelled in the children's written work with the percentages given in the *Iowa Spelling Scales* there was a fairly consistent tendency for the words to show a lower percentage of error when used by the children in their own writing.

Methods of Teaching

Differentiating instruction in spelling according to pupil abilities is most valuable. Horn (15) reported that very satisfactory results were obtained

when spelling test papers were corrected by the pupils under teacher guidance.

Horn (16) also investigated the effect of a syllabic presentation of words upon learning to spell. The experiment tested 768 pupils from Grade VI in three Iowa cities and in an attempt to determine the effect of syllabic presentation of words on learning to spell. It also involved over 1000 pupils from Grade V in an attempt to determine which of five selected types of words would aid learning and what degree of aid they would offer if they were presented syllabically. A careful statistical analysis of the findings led to the conclusion that presenting words in syllabified form offered no advantage and selecting generalized classifications for presenting words in syllabified form possessed no advantage. Furthermore it appeared that (a) syllabifying certain words may cause errors in spelling and exert a negative influence on learning to spell them and (b) no advantage was obtained by pupils of either superior or inferior spelling ability as a result of syllabic presentation of words.

Kyte (17) reported an investigation dealing with elementary-school pupils grouped homogeneously for instruction. Pupils showing high achievement on standard spelling tests were excused from formal spelling instruction for extended periods. Periodic checks were maintained on the pupils excused. A generalization made was that some pupils may be excused from formal instruction with the assurance that they will continue to improve in their spelling skill, but check-ups on their spelling ability are needed at periodic intervals.

Spelling: A Facet of Language

Most significant in discussions concerning spelling was the emphasis placed on the relationship between spelling and the language arts. Research continued to justify this interrelatedness and to emphasize further the proper sequence of language development for purposes of instruction.

Russell (22) investigated relationships between spelling ability, reading abilities, and meaning vocabularies. The study involved 135 pupils from Grades III to V. High intercorrelations on spelling, reading speed, reading comprehension, word recognition, and word meaning were found. Some implications for curriculum practices were: (a) added emphasis should be given to considering spelling ability as a part of language arts ability; (b) poor spelling is not necessarily caused by deficiency in reading or vocabulary; and (c) a definite need exists for utilizing in spelling instructional activities which develop word meaning.

Townsend (25) reported relationships of spelling with reading, vocabulary, and academic aptitude. The population used was approximately 200 pupils each in Grades III thru XII. On the basis of the tests used she found that (a) a substantial correlation exists between spelling scores and scores in reading comprehension and vocabulary; (b) at two grade levels tested a positive correlation (.49 and .62) existed between spelling scores and

academic aptitude; and (c) the obtained data agree with those obtained by other investigators but show higher positive correlations (.65 to .70) between spelling and vocabulary in the secondary-school grades.

Handwriting

Current Practices

A questionnaire survey to determine the extent to which manuscript writing was being used in the schools of the United States was conducted by Freeman (7). His results, based on 727 replies from larger towns (5000 or more population) and cities, justify the following statements: (a) 84 percent of the replies indicated the use of manuscript writing exclusively in Grades I and II; (b) the shift from manuscript to cursive writing usually occurred at the third grade level; and (c) opinions strongly supported statements of the advantages of manuscript writing and minimized statements of certain disadvantages, including the belief that it is difficult to change from manuscript to cursive writing.

Heese (11) reported results obtained from an extensive questionnaire used to determine opinion concerning the influence of the use of print-script (manuscript writing) in South African schools. In this instance school principals and school inspectors were consulted. The study consisted of two parts and drew many conclusions. In general the results showed that (a) it was better to start with manuscript in Grades I and II and then to change to cursive, (b) the longer pupils waited to transfer from manuscript to cursive writing the poorer their handwriting was, (c) high-school teachers preferred that their students use cursive writing, and (d) objective handwriting scales were not being used to evaluate writing.

A similar study was made by Polkinghorne (19). She sampled public school systems in cities of 100,000 or more population, private schools with enrolments of 100 or more, laboratory schools connected with state teachers colleges and normal schools, and schools of various types in Chicago. She found that (a) 93 percent of the schools began handwriting instruction in Grade I, (b) 89 percent began with manuscript, (c) 18 percent used manuscript thruout the grades, (d) 66 percent shifted from manuscript to cursive in Grade III or above, (e) 65 percent used a commercially prepared system of handwriting, and (f) time devoted to writing practice varied from 75 to 100 minutes per week.

Technics for Writing

Callewaert (3), a Belgian medical doctor, advocated a methodical apprenticeship and good technical conditions to coordinate cursive with "inscriptive" movements.

Lewry (18) investigated styles of type and available manuscript writing systems and manuals. As a result of her work she suggested that the letter forms for manuscript writing be further standardized.

Summary

Improved selection of words to be studied in spelling has been made possible by the studies reported, especially the Rinsland and the Ayer compilations. The measures of achievement which were reported added further insight into the level of attainment which has resulted from presentday teaching of spelling. The need to differentiate spelling instruction and to be cognizant of the role of spelling as a facet of language was again evidenced. As was indicated by Horn (14), additional research concerning learning procedures, recall, overlearning, distribution of learning, and the like is needed.

The surveys reported in handwriting provided measures of current practices in teaching manuscript and cursive writing. For instructional purposes and for vocational guidance more controlled research is needed which will treat the efficiency with which writing is done at different levels.

Bibliography

1. AYER, FRED C. *Gateways to Correct Spelling*. Austin, Texas: The Steck Company, 1946.
2. AYER, FRED C. *A Study of High School Spelling Vocabulary*. Austin, Texas: The Steck Company, 1945. 128 p.
3. CALLEWAERT, H. "A Rational Technique of Handwriting." *Journal of Educational Research* 41: 1-12; September 1947.
4. FOGLER, SIGMUND. "The Case for a Basic Written Vocabulary." *Elementary School Journal* 47: 43-47; September 1946.
5. FOX, WILLIAM H. "Spelling Proficiency in Township Schools in Indiana." *Bulletin of the School of Education, Indiana University* 23 No. 1: 1-31; January 1947.
6. FOX, WILLIAM H. and EATON, MERRILL T. "Analysis of the Spelling Proficiency of 82,833 Pupils in Grades 2 to 8 in 3547 Teaching Units of the City Schools in Indiana." *Bulletin of the School of Education, Indiana University* 22 No. 2: 1-45; March 1946.
7. FREEMAN, FRANK N. "Survey of Manuscript Writing in the Public Schools." *Elementary School Journal* 46: 375-80; March 1946.
8. GAETKE, LUCILA I. *A Comparison of Two Contextual Dictation Tests in Spelling*. Master's thesis. Iowa City: State University of Iowa, 1948. 74 p.
9. HARRIS, CHESTER W. "Prediction of the Difficulty Index of Objective-Type Spelling Items." *Educational and Psychological Measurements* 7: 319-25; Summer 1947.
10. HARRIS, OLIVER E. "An Investigation of Spelling Achievement of Secondary-School Pupils." *Educational Administration and Supervision* 7: 208-18; April 1947.
11. HEESE, J. DEVILLIERS. "The Use of Manuscript Writing in South African Schools." *Journal of Educational Research* 40: 161-77; November 1946.
12. HILDRETH, GERTRUDE. "Spelling as a Language Tool." *Elementary School Journal* 48: 33-40; September 1947.
13. HILDRETH, GERTRUDE. "Word Frequency as a Factor in Learning To Read and Spell." *Journal of Educational Research* 41: 467-71; February 1948.
14. HORN, ERNEST. "Spelling." *Encyclopedia of Educational Research*. (Monroe, Walter S., editor.) New York: The Macmillan Company, 1941. p. 1166-83.
15. HORN, THOMAS D. "The Effect of the Corrected Test on Learning To Spell." *Elementary School Journal* 47: 277-85; January 1947.
16. HORN, THOMAS D. *The Effect of a Syllabic Presentation of Words upon Learning To Spell*. Doctor's thesis. Iowa City: State University of Iowa, 1947. 397 p.
17. KYTE, GEORGE C. "When Spelling Has Been Mastered in the Elementary School." *Journal of Educational Research* 42: 47-53; September 1948.
18. LEWRY, MARION E. "Improving Manuscript Writing in Primary Grades." *Elementary School Journal* 47: 508-15; May 1947.

19. POLKINGHORNE, ADA R. "Current Practices in Teaching Handwriting." *Elementary School Journal* 47: 218-24; December 1946.
20. RINSLAND, HENRY D. *A Basic Vocabulary of Elementary School Children*. New York: The Macmillan Company, 1945. 636 p.
21. ROBBINS, WILHELMINA K. *Spelling Errors in the Writing of Second and Third Grade Children*. Master's thesis. Iowa City: State University of Iowa, 1948. 174 p.
22. RUSSELL, DAVID H. "Spelling Ability in Relation to Reading and Vocabulary Achievements." *Elementary English Review* 23: 32-37; January 1946.
23. SIFFERD, CALVIN S. "A Survey of Spelling Ability." *Elementary School Journal* 47: 340-46; February 1947.
24. STEGEMAN, WILLIAM H. "Rate of Forgetting: An Important Factor in Spelling." *California Journal of Elementary Education* 15: 152-58; February 1947.
25. TOWNSEND, AGATHA. "An Investigation of Certain Relationships of Spelling with Reading and Academic Aptitude." *Journal of Educational Research* 40: 465-71; February 1947.
26. WESMAN, ALEXANDER G. "The Usefulness of Correctly Spelled Words in a Spelling Test." *Journal of Educational Psychology* 37: 242-46; April 1946.

CHAPTER IV

Research in the Teaching of Literature

DWIGHT L. BURTON

RESEARCH in the teaching of literature during the past three years has proceeded along some new lines of interest while continuing activity in old channels. The situation which was revealed when this topic was reviewed three years ago persists today: a large amount of literature has been published in the field, but a major part of it is of a philosophical rather than of a research nature. It is the purpose of this chapter to review actual research which concerns the teaching of literature and which has been published since September 1945.

Two factors, in particular, help to explain the somewhat limited quantity of research in literature. The first of these factors is the confusion which has existed in general in the teaching of English during the past fifteen years. As a result of this confusion curriculum revision and innovation have been widespread and there has been much concern with the objectives of teaching literature. This feeling of uncertainty in the field is, in fact, further evidence of the need for research. A second factor which may account for the scarcity of research in the field is seen when it is noted that outcomes in literature are often intangible and that factors in the literature teaching situation do not lend themselves as readily to controlled experimentation as do those in many other teaching situations. Several recent unpublished master's and doctor's theses give promise that research in the teaching of literature is becoming accelerated.

National and State Studies

Of very great current importance was the nationwide study of the language arts curriculum which was sponsored by the National Council of Teachers of English. Dora V. Smith (38), chairman of the Curriculum Commission, stated that the purpose of the study as it pertained to instruction in literature was to determine what experiences should be afforded students thru literature and what reading materials would give those experiences most effectively to pupils of various levels of maturity and reading capacity. A study of American literature in American colleges sponsored by the National Council of Teachers of English (27, 30) afforded the basis for the conclusion that American literature was being neglected in the colleges. Only 25,000 of 600,000 college day students in 1943-44 were required to take courses in American literature. Thirty percent of the colleges required courses in American literature for majors in English and American studies. The three writers studied most frequently were Emerson, Hawthorne, and Whitman. Humble (18) reported on a study of literature requirements in the secondary curriculum of

Canada. The study, which was prompted by the high percentage of failures in English literature, concluded that: (a) textbooks should be changed more frequently; (b) many selections, particularly poetry, should be discarded and replaced with ones more appealing to adolescents; and (c) a committee of secondary-school English specialists should examine literature requirements. A survey of the teaching of American Literature in the high schools of Illinois was made (25). A first finding of this investigation was that there was a trend in the direction of a required eleventh-grade course in American literature which should be taught chronologically and with the understanding and enjoyment of good writing produced by American writers as the chief aim.

Teaching Techniques in Literature

In the past three years, research has been continued in the areas which have long been a subject of investigation: (a) technics of teaching literature and (b) the organization of the literature course. Meade (26) analyzed fifteen state courses of study published since 1934 to discover what type of organization was recommended for the literature program in Grades XI and XII. Two states recommended only chronological organization; nine recommended only organization by types or content; and five recommended only organization by themes or experiences. Meade concluded that chronological organization is obsolete and not in keeping with the main aims of literature teaching. Handlan (13) conducted a five-month study of free reading. She found that stereotyped patterns of ideas prevailed in books teachers considered to be suitable for adolescents. During the five months covered in that study the high-school students in the sample did not read, in general, books which (a) featured adults as the main characters, (b) had a setting foreign in place or past in time, (c) featured unfamiliar types of characters, (d) contained fantasy or subtle humor, or (e) had slow-moving narrative, descriptive exposition, or discursive passages. Handlan's general conclusion was that these students do not grow in appreciation thru free reading. Fox (10) reached somewhat different conclusions regarding free reading as a result of an experiment with pupils in Grades IV and V. In her experiment the pupils were given daily free-reading periods and retarded readers were aided by superior readers during one hour of the two-hour period. The results showed that each pupil gained two or more reading interests and that comics declined in popularity while more mature types of literature gained. Fox concluded that (a) children, even retarded readers, can be led to develop interest in free reading and can acquire the habit of reading for pleasure; (b) children's interests can be broadened and deepened when they become convinced that better diversions and ideas exist for them in many books; (c) intermediate-grade children can evaluate intelligently their own reading accomplishments and deficiencies; and (d) children can be led into a gradual elevation of tastes in reading selection.

Ehrenpreis (8) made a searching study of the types approach to the

teaching of literature. He showed that high-school teachers borrowed the approach from the colleges where it originated. He concluded that (a) there was a trend toward an enrichment of the types approach as well as a trend toward teaching students the skills necessary to read each type; (b) the world literature course invited organization by types since the relationships of a type to its origins in a way of life can be shown; and (c) some theories remained unquestioned regarding teaching by types while others were widely questioned.

One study of the placement of literature selections in the secondary school was published. Painter and Franzen (29) synthesized 144 studies on interest and difficulty of reading selections. A median grade placement according to difficulty and interest was arrived at for twenty-two commonly read selections. Only two of the twenty-two selections had the same grade placement by both interest and difficulty while thirteen varied on the two criteria by more than two grades. Of all the selections considered, 88 percent had a higher placement by interest than by difficulty. As a result of this fact the authors concluded that pupil interest in a selection depends greatly upon the difficulty of the selection.

Some writers have argued that literature could be taught most effectively thru correlation with other subjects in the curriculum. Daly, Brugger, and Anderson (5) conducted an experiment with a combined summer-session course in eleventh-grade American history and English at the University of Minnesota High School. The class ran four hours a day for six weeks. The selections were drawn exclusively from American literature. The evaluation instruments were the *Iowa Silent Reading Test*, the *Smith-McCullough Essentials of English Test*, the *Wesley-Anderson Mastery Test in American History*, and a student questionnaire. The results showed significant gains in both literature and American history. The questionnaire revealed that students were as satisfied with the combined course as they had been with any separate history or English course. Foley and Lagerberg (9) described a similar experiment at the high school at Alpena, Michigan. The experimenters taught a twelfth-grade combined course in world literature and world history. The methods of evaluation were not described, but the authors concluded that (a) there was definite improvement in knowledge of world literature and world history and (b) the students in the experimental group were more active and interested than the twelfth-grade students in the regular separate classes. The teaching of literature thru correlation with other subjects was being practiced at the college level principally thru the American Studies programs. McDowell (24) observed the curriculum in American Studies in over thirty colleges and universities. He found various patterns of organization, the most common of which was an interdepartmental organization of courses in which literature and history were the principal fields of study. McDowell described the University of Minnesota program in American Studies in some detail.

An experiment with a coordinated curriculum for children aged eleven to thirteen was reported from England (40). The strands of study fused

included literature, religion, social studies, science, aesthetic training, and physical education. The evaluation procedures were not described, but the following results were reported: (a) the new course stimulated enthusiasm, developed independence, quickened powers of observation and expression, and fostered cooperation and (b) the pupils apparently learned as much factual knowledge as they had previously learned in separate departmental courses.

In an important 600-page work, Arbuthnot (3) included sections of each of the various types of literary material useful with children. She analyzed the values and misuses of each of these types and offered suggestions on how to use each type. Hays (15) compiled annotated bibliographies of publications dealing with the college teaching of English.

Evaluation of Literature Teaching

Increased research activity was noted in this area. Loban (23) summarized and analyzed critically sixteen technics developed in the 1930's and 1940's for evaluating student growth in literature. Harris (14) conducted a controlled experiment having important implications by administering a test of literary comprehension to samples of students and analyzing the data by means of factor analysis. The content was controlled by selecting from critical anthologies passages that were varied in form, in period, and in style. Types of reaction were controlled by defining comprehension in terms of seven behaviors or reactions and using this definition as a guide in preparing test items on the selected passages. Fourteen passages were used with four-choice multiple test items covering each. Harris concluded that (a) the ability of students to comprehend literature tends to be general rather than specific to certain forms of literature or specific to certain aspects of comprehension and (b) performance in the seven skills comprising comprehension correlate highly, further showing that ability is general. Husband (19) developed a technic for evaluating growth in reading maturity. He constructed a test, including prose and poetry selections, in which students had a choice in each item between (a) precise, dense expression and meaning, (b) ambiguous expression and meaning, and (c) material of an intermediate nature. The experimental group of students was divided into four groups according to IQ. The results showed a progression from a clear-cut preference for the ambiguous in the lowest IQ group to preference for the definite in the highest IQ group. Husband's general conclusion was that interpretation of desirable reading preferences (maturity in reading) should not be based upon a specific body of content or titles but on groups of characteristics present in varying degree in all reading situations.

Henry (16) attempted to set up a rating scale for subjectively judging a student's possession of ideals inculcated by literature. The student's behavior was to be evaluated against a series of descriptions of what behavior would be if the ideals expressed in literature had been inculcated

in the student. Houle (17) reported the results of a student evaluation of a course in great books at the University of Chicago. A questionnaire was used to secure the responses of 185 adults who had taken the course. Seventy-nine of the 185 thought they had achieved completely the objective they had for enrolling in the class, fifty-eight thought they had achieved their objective fairly well, and three felt that the course was a failure. Houle concluded that (a) the adult course in great books was a success in the minds of the students and (b) the responses on the questionnaire were mature showing that great books have meaning to adults as a way of integrating and clarifying present life.

Literature for Social and Personal Adjustment

The interest among English teachers in broader purposes for the teaching of literature was reflected in the research. Several graduate theses were written and several more are in progress on the subject of literature as an aid in the solution of personal and social problems. Smiley (37) conducted an informal survey of intercultural education in high-school English classes. The survey was based upon reports from a number of English teachers thruout the country. Smiley analyzed the various ways in which intercultural education was promoted in the high-school English class. She concluded that literature and class activities led students to understand (a) American principles of equality, diversity, and reasonableness, (b) democracy as an unfinished business since discrimination and injustices continue to exist, (c) the positive facts of race culture, (d) the sociological and psychological processes by which prejudices are established, (e) the feeling of being unjustly rejected and the feeling of belonging, and (f) the elements common to different cultures and the sharing of all peoples in the building of civilization. Sister Mary Agnes (36) studied the influence of literature on attitudes toward the Negro. The sampling included 100 white girls in Grades IX thru XII, all of whom had read at least two books which were written by Negroes or which dealt with Negroes. This group was paired by grade, age, and intelligence with a control group in which none of the students had read any books written by Negroes or dealing with Negroes. The testing instrument was a questionnaire divided into four parts: preliminary information, general attitudes, personal contacts, and deeper social problems. The results showed that (a) the experimental group was much more disposed to grant the Negro his human rights since that group had a more intelligent grasp of principles basic to judgments, (b) the experimental group was much more willing to accept the Negro as an equal in social situations, and (c) there was little difference between the two groups when the causes of racial dissension were analyzed.

Research was begun in the area of bibliotherapy and personality development thru literature. Kircher (20) drew up an annotated bibliography of 263 books to be used in bibliotherapy at all levels from the primary grades

thru the secondary school. Each book was analyzed for the moral qualities represented in it. Burton (4) made a study of the main types of adolescent problems. From the sampling of eighty eleventh-grade students, he discovered that the five principal types of adolescent problems, in order, were (a) relations with parents, (b) relations with other adolescents, (c) problems of personality, (d) school problems, and (e) relations with brothers and sisters. He then discussed a group of books which featured adolescents facing these same general problems, analyzing each book for the five general types of problems listed above. Sister Mary Agnes (35) published five case studies in bibliotherapy with adolescents. Altho there was no description of the measuring technics used, she reported that all but one of the five subjects showed slight but definite improvement in conduct and attitude. However, only one of the five saw a connection between her own problems and those of the book characters. Methods for evaluating the success of bibliotherapy have yet to be developed.

Wenzel (41) analyzed a group of books of fiction written during the past ten years for elementary-school children. She based her evaluation upon the assumptions or "pitfalls" of fiction listed by Sample (32) and upon the three sets of values of literature for children outlined by Rosenblatt (31). These values are (a) understanding of democratic values, (b) understanding of personal needs and problems, and (c) understanding of minority groups. Wenzel concluded that literature, because of its intellectual-emotional appeal, has a contribution to make to a child's socialization and that there is today a large body of good fiction for children which can contribute to this end. Dinkel (6), after two years of experimenting in which he used "tailor-made" stories with his preschool child, analyzed the weaknesses of popular nursery tales and showed how nursery literature acts as an aid in socialization. He offered several criteria for selecting nursery books. His chief conclusion was that parents cannot assume that nursery tales are a delightful but innocuous means of entertainment.

Reading Interests and Preferences

The field of reading interests and preferences has received considerable research attention. Most of the studies used the familiar technics of questionnaire or analysis of library charge-outs. Recent studies tend to corroborate past findings which have established rather definite patterns of reading tastes at various levels. Leary (22), in a review of reading research, summarized the finding on reading interests of various segments of the population. Witty, Coomer, and McBean (42) completed a study of the favorite book choices of a large number of children in kindergarten thru Grade VIII. In general, the favorite books were animal stories and general action and adventure stories. The choices conformed closely to adult standards as expressed in such sources as the H. W. Wilson *Children's Catalog* and the American Library Association's *A Basic Book Collection for Elementary Grades*. The authors drew four implications from their

results: (a) a rich and varied assortment of books is needed for use with children, (b) audio and visual aids should be used to foster interest in reading, (c) a balanced reading program will care for individual differences, and (d) there must be an unending quest for the right book for the right child. One of the most extensive studies was that of Norvell (28), whose sample included 50,000 children in the state of New York. Norvell's findings showed that much of the material now being used in the literature class is disliked by pupils and that the single factor most important in determining reading interest is sex. Both boys and girls, at appropriate levels, like adventure stories, humor, stories and poems of patriotism, mystery stories, and animal stories. However, boys showed stronger preference for wild animal stories, science, and adventure stories while girls showed stronger liking for stories of romantic love and stories and poems of family life. Norvell made several important recommendations: (a) for study in common, only selections that meet the approval of both teachers and pupils should be used, (b) there should be extensive individual reading, (c) the student should be the primary consideration in the choice of material, (d) three-fourths of the selections now commonly in use in the literature class should be replaced with selections children enjoy, and (e) the boys as well as the girls should be considered when materials are chosen.

Scanlon (33), by determining the frequency with which books were withdrawn, drew up a list of the 100 most popular children's books in the St. Paul Public Library during the first seven months of 1947. He found that most of the favorite books were of recent copyright date, sixty-four published since 1930; forty-three of the books were written by nine authors, Seaman being the favorite; and twenty-eight of the selections were animal stories. Kyte (21) studied the reactions of elementary children to fifty poems frequently used in elementary classes. He concluded that (a) poems judged appealing by adult specialists may or may not be liked by elementary pupils, sex, age, and type of community accounting for differences; (b) the best-liked poems were narrative, included humor and dramatic action, and involved pleasant experiences; (c) the most disliked poems involved unappealing or disturbing experiences, were not understood, or were written in a confused or troublesome style; and (d) the specific nature of certain poems determined whether or not they were liked—for example, a poem with a moral might or might not be liked. Anderson (2) studied the reading interests of children in Grades VII and VIII. Eighty-eight percent of the group studied indicated that they liked to read. The types of material most read, in the order of popularity, were comic books, fiction, animal stories, biography, and western stories. Anderson, like the other investigators, found definite sex differences in reading interest.

Studies of reading preferences at the secondary level, unlike those at the elementary level, revealed a wide gulf between actual student preference and the type of selections most commonly read in the classroom.

Strang (39) found adventure, love, and mystery to be the categories most appealing to students in Grades VII to XII. There was also strong interest in books about teen-agers, and, among the boys, interest in sports, science, and outdoor life. Very few students expressed interest in any of the classics commonly read in the literature class. The trends most significant to Strang were the wide range of interest represented and the extensive interest in current adult fiction. A study of reading tastes of high-school students in New Zealand by Scott (34) showed findings closely parallel to those of American studies. Four thousand students were asked to list the books they had read outside of school within the past month. The boys averaged 5.4 books each and the girls, 5.9. Two-thirds of the books read were written for adults and one-third for young people, showing that high-school students prefer adult fiction. Detective stories and love stories were the favorite types of books. Altho the classics were not popular generally, this study shows a much greater interest in classics among the students of New Zealand than among American students. Fiction was four times as popular as nonfiction. The favorite nonfiction topics were aviation and the sea. Very little out-of-school reading had been done in either poetry or drama. Scott found sex differences similar to those revealed by American studies. Scott's conclusions, too, are similar to those of many earlier studies in this country. He found that (a) the problem is to frame an English course which will provide both common materials for class work and the materials which will appeal to the varied interests of individual students and (b) the teacher's starting point must be a story which the pupils can understand and enjoy.

Donahue (7) studied the reading interests of Catholic boys in a college preparatory curriculum. The chief interest categories were sports, adventure, and mystery. Dissenting from the conclusions of many other investigators, Donahue concluded that reading interests have little relationship to general interests. From his survey at the Vernon (Indiana) High School, Guy (12) concluded that very little leisure reading of any kind was done. Over 50 percent of the students did not even read the daily newspaper. The most popular reading material was the picture magazine. In a study of the reading interests of subnormal boys, Gunzburg (11) found that the subnormal boy's interests are essentially the same as those of boys of his mental age. Some characteristic differences are strengthened interest in boy characters and boys' adventures and in familiar scenes and persons.

At the college level, Ames (1) surveyed his students' preferences among the authors read in their course in English literature before 1800. Swift was the best-liked author. The principal conclusions were that (a) the prose writers were better liked than the poets and (b) in any class, no author impresses all the students or fails to impress some.

A general conclusion implied in what has been presented in this chapter is that there is a definite need for further, more extensive, more objective research in the teaching of literature. Much carefully controlled experi-

mentation is needed with methods of approach and with types of material to be used in teaching literature at various school and grade levels. The research itself, particularly the study of students' reading preferences, indicates how inadequately some of the objectives for the teaching of literature have been achieved. Furthermore, research is needed in the evaluation of the teaching of literature. This latter area is a field which, from the point of view of the extent and adequacy of its research, is still not too well covered in the literature.

Bibliography

1. AMES, ALFRED G. "Students Grade Authors." *College English* 9: 159-61; December 1947.
2. ANDERSON, ESTHER M. "A Study of Leisure-Time Reading of Pupils in Junior High School." *Elementary School Journal* 48: 258-67; January 1948.
3. ARBUTHNOT, MAY HILL. *Children and Books*. New York: Scott, Foresman, and Company, 1947. 626 p.
4. BURTON, DWIGHT L. "Books To Meet Students' Personal Needs." *English Journal* 36: 469-73; November 1947.
5. DALY, GRACE M.; BRUGGER, HARMONY E.; and ANDERSON, KENNETH E. "America: An Experiment." *Journal of Educational Research* 41: 222-29; November 1947.
6. DINKEL, ROBERT M. "The Influence of Nursery Literature on Child Development." *Sociology and Social Research* 31: 285-90; March 1947.
7. DONAHUE, EDWARD F. "Leisure-Time Reading Interests of Catholic High School Boys." *Catholic Educational Review* 45: 525-33; November 1947.
8. EHRENPREIS, IRVIN. *The Types Approach to Literature*. New York: Kink's Crown Press, 1945. 153 p.
9. FOLEY, HARRIET and LAGERBERG, MATT. "World History and World Literature." *Clearing House* 22: 32-34; September 1947.
10. FOX, MAUDE G. "An Experiment in Promoting Interest in Reading." *Elementary School Journal* 46: 451-60; April 1947.
11. GUNZBURG, HERBERT C. "The Subnormal Boy and His Reading Interests." *Library Quarterly* 18: 264-74; October 1948.
12. GUY, PHILLIP A. "What Do Our High School Students Read?" *Teachers College Journal* 20: 6-7; October 1948.
13. HANDLAN, BERTHA. "The Fallacy of Free Reading as an Approach to Appreciation." *English Journal* 35: 182-88; April 1946.
14. HARRIS, CHESTER W. "Measurement of Comprehension of Literature." *School Review* 56: 280-89 May; 332-43 June 1948.
15. HAYS, EDNA, editor. "The College Teaching of English: A Bibliography." *College English* 8: 410-34; May 1947.
16. HENRY, GEORGE. "An Attempt To Measure Ideals." *English Journal* 35: 487-93; November 1946.
17. HOULE, CYRIL O. "What Adults Think of the Great Books." *School Review* 54: 270-78; May 1946.
18. HUMBLE, ARCHIBALD H. "A Review of Upper School English Studies." *School Review* (Toronto) (Secondary Edition) 35: 372-76; February 1947.
19. HUSBAND, JOHN D. "A Technique for the Evaluation of Growth in Certain Affective Phases of Reading among High School Pupils." *Journal of Educational Research* 39: 265-71; December 1945.
20. KIRCHER, CLARA J. *Character Formation through Books: A Bibliography*. Washington, D. C.: Catholic University of America, 1945. 85 p.
21. KYTE, GEORGE C. "Children's Reactions to Fifty Selected Poems." *Elementary School Journal* 47: 331-39; February 1947.
22. LEARY, BERNICE E. "What Does Research Say about Reading?" *Journal of Educational Research* 39: 434-44; February 1946.
23. LOBAN, WALTER. "Evaluating Growth in the Study of Literature." *English Journal* 37: 277-83; June 1948.
24. McDOWELL, TREMAINE. *American Studies*. Minneapolis: University of Minnesota Press, 1948. 96 p.

25. MCHARRY, LIESETTE J. "A Progress Report of the I.A.T.E. Committee on a Study of the Teaching of American Literature." *Illinois English Bulletin* 36: 1-7; December 1948.
26. MEADE, RICHARD A. "Organization of Literature for Juniors and Seniors." *English Journal* 36: 366-70; September 1947.
27. NATIONAL COUNCIL OF TEACHERS OF ENGLISH. Committee on the College Study of American Literature and Culture. *American Literature in the College Curriculum*. Chicago: the Council, 1948. 55 p.
28. NORVELL, GEORGE W. "Some Results of a Twelve-Year Study of Children's Reading Interests." *English Journal* 35: 531-36; December 1946.
29. PAINTER, HELEN W. and FRANZEN, CARL G. F. "A Synthesis of Research on the Placement of Reading Material in Secondary School Literature." *Journal of Educational Research* 39: 304-306; December 1945.
30. PUBLISHERS WEEKLY. "Study of American Literature Neglected in Colleges." *Publishers Weekly* 148: 2683; December 22, 1945.
31. ROSENBLATT, LOUISE M. *Literature as Exploration*. New York: D. Appleton-Century Company, 1938. 340 p.
32. SAMPLE, HAZEL. *Pitfalls for Readers of Fiction*. Chicago: National Council Teachers of English, 1940. 34 p.
33. SCANLON, WILLIAM J. "One Hundred Most Popular Books of Children's Fiction Selected by Children." *Elementary English* 25: 83-97; February 1948.
34. SCOTT, WALTER J. *Reading, Film and Radio Tastes of High School Boys and Girls*. Educational Research Series No. 28. Wellington: New Zealand Council for Educational Research, 1947. 208 p.
35. SISTER MARY AGNES. "Bibliotherapy for Socially Maladjusted Children." *Catholic Educational Review* 44: 8-16; January 1946.
36. SISTER MARY AGNES. "Influence of Reading on the Racial Attitudes of Adolescent Girls." *Catholic Educational Review* 45: 415-20; September 1947.
37. SMILEY, MARJORIE B. "Intercultural Education in English Classrooms: An Informal Survey." *English Journal* 35: 337-49; June 1946.
38. SMITH, DORA V. "The Curriculum Study of the NCTE." *English Journal* 36: 66-73; February 1947.
39. STRANG, RUTH. "Reading Interests, 1946." *English Journal* 35: 477-82; November 1946.
40. TIMES EDUCATION SUPPLEMENT. "Experiment in Methods." *Times Education Supplement* No. 1658: 75; February 8, 1947.
41. WENZEL, EVELYN. "Children's Literature and Personality Development." *Elementary English* 25: 12-31; January 1948.
42. WITTY, PAUL A.; COOMER, ANN; and McBEAN, DILLA. "Children's Choices of Favorite Books: A Study Conducted in Ten Elementary Schools." *Journal of Educational Psychology* 37: 266-78; May 1946.

CHAPTER V

English Composition

CLIFFORD P. ARCHER

THE literature bearing on English composition reviewed in this chapter is confined to published reports of research and a few other published articles in which research methods appear to have been used.

Summaries of Research

In an effort to locate evidence bearing on methods of teaching English, Greene (16) surveyed published and unpublished studies covering a long period of years. He reported that diagraming had been dropped from English textbooks before 1940, apparently without any reason based on reported objective evidence; that two investigations of the present decade revealed that instruction in diagraming definitely improved skill in diagraming but that the improvement of such skill did not appear to contribute to a knowledge of English correctness or to comprehension in silent reading; and that sentence structure is as effectively taught by a direct composition method as by teaching diagraming. He also reported that attempts to teach certain grammatical elements related to punctuation resulted in improvement of grammatical knowledge which did not appear to transfer appreciably to skill in punctuation. He concluded that direct methods of teaching are superior to formal methods, and that the evidence leads to the conclusion that repeated and spaced habit-forming experiences are more productive of mastery than formal rules and exercises.

In her second edition of "Learning the Three R's," Hildreth (25) summarized evidence related to vocabularies of children, individual differences, bilingualism, learning thru experience, creative writing, English usage, and improvement of composition skills.

Three types of research and an interpretation of the significance of each were listed by Pooley (37). The first type of studies summarized attempts to make somewhat objective the evaluation of composition. After extensive reference to studies in this area Pooley concluded that by using group judgments composition can be evaluated in ranks which are reasonably objective, that individual unguided judgment is unreliable, that correction of mechanical errors is a minor portion of evaluation (content is primary), and that experienced teacher judgment is at present a more valid measure of composition skill than any present English test. The second type of research referred to by Pooley dealt with studies of English usage. According to Pooley these studies may serve as guides in textbook construction and curriculum building, but they are deficient in this matter as a result of their basing standards of correctness on textbooks rather than on "living English." Other investigations revealed that correctness

is relative and that the final criterion of correctness is derived from the needs of communication. The third type of research which Pooley discussed dealt with instruction. All studies covered in this area found a tremendous gap between stated objectives in teaching English and actual practice and results.

Loban (31) summarized twenty-two studies of language which should be helpful to the teacher. His first group included seven studies which help in the determination of what to teach. He indicated that these studies showed that, in usage, instruction should be aimed carefully at a small number of prominent errors and difficulties which he apparently did not identify exactly. His second group included studies which relate to developing an understanding of the English language. He suggested that the teacher eliminate outmoded concepts about English. His third group included eight studies related to specific methods of teaching. He concluded that the oral usage method is superior to the grammar approach in learning good usage. The time needed for learning is reduced and the effectiveness of teaching usage is increased by experience methods rather than by formal grammar teaching methods. He concluded that children should not be taught about language but rather should be given extensive experience in using language for purposes of communication.

On the teaching of college English, Hays compiled and evaluated two bibliographies of references published since 1945, one (23) covering 203 references and the other (24) covering 184 publications. She concluded that during the period covered there was great confusion in aims, content, and methods of teaching college English. She found that the number of curriculum studies had grown since 1945, the number of articles dealing with content having increased markedly during the three years preceding 1948.

Surveys of English Teaching Practices

The Wisconsin language arts investigation reported by Pooley (29) and by Pooley and Williams (40) covered a survey of secondary and elementary schools during a two-year period. Questionnaires on teacher preparation and experience were sent to all high-school teachers and to 1500 elementary-school teachers in the twelve counties included in the survey area. Twelve larger cities, villages, and rural schools were also included in the number of schools investigated. Personal visits were made by two instructors to 632 classrooms in 193 elementary schools and junior-high schools, and to 273 classrooms in 93 senior-high schools. The section of the report dealing with the elementary school covers characteristics of teachers, language curriculum, instructional materials, classroom procedures, evaluation, and summary and recommendations. Thirty percent of the elementary-school English lessons dealt with oral English, 26 percent with composition, 30 percent with the various skills of English, and 14 percent with literature, principally the study of poetry. Smaller schools devoted more time to grammar, spelling, and word study than did city

schools. Workbooks and older textbooks were used more extensively in county and village schools. Compositions arising from workbook and textbook assignments tended to be brief, formal, and uninteresting; those growing out of experiences in the school curriculum were longer, more vivid than those written on assigned topics, and much more interesting. Social letters, business letters, and informal stories provided 56 percent of the composition writing in rural schools and 63 percent of the writing in city schools. Pooley concluded that too much time was given to the review of rules, that elementary-school teachers were weak in correction of written work, and that usage drills in both city and rural schools consisted principally of isolated rather than applied practice.

Pooley and Williams (40) found that the curriculum of Wisconsin junior- and senior-high schools gave more time to literature than to other aspects of the English course (nearly half of the time spent in English in senior-high schools). In time spent, grammar and usage ranked second to the teaching of literature appreciation. In the junior-high school, grammar, usage, and spelling consumed the greatest share of the time. Grammar and usage were primarily treated as analytical and theoretical studies.

Hatfield (22) reported on the progress made in the teaching of English during the thirty-five years preceding 1946. Better presentday textbooks are organized by units dealing with uses of English in life situations and the number of grammar topics included in the texts has been reduced. Modern instruction includes using a textbook chiefly for reference purposes. Changes have taken place in teachers' attitudes toward usage, less time being wasted by better teachers on preferred forms.

Thayer (55) made recommendations for the improvement of English on the basis of a four-year study of 300,000 Army and Navy recruits who displayed marked deficiencies in the use of English. The Psychological Institute of Lake Alfred, Florida, reported (42) the beginning of a three-year survey of English usage and remedial work in high schools and colleges of the United States.

Ellis (10) secured the cooperation of 14 state departments of education, 165 school systems, and 79 colleges in conducting a survey of how well students speak, write, and read. Her reports are not flattering to students. She finds the English teaching load heavy for the high-school staff. A major defect in the English field is the absence of a systematic progression of subjectmatter and sequence of development in skills and knowledge. She did not find the college teaching load too heavy but there was evidence that the college instructors tend to spend their time on research rather than on the improvement of instruction. Fifty-four colleges have no articulation with high-school programs. Critical problems in college English reported were lack of ability to read, lack of ability to write well, lack of vocabulary, little knowledge of grammar, incoherent thinking, poor attitude toward correct English, lack of critical judgment, and lack of knowledge of syntax.

Bond (3) furnished the results of a survey of remedial English in

thirty-six state-supported schools of the Midwest. The responses to a questionnaire came from nineteen universities and seventeen state teachers colleges. Thirty percent of the universities, 24 percent of teachers colleges, and 27 percent of the groups combined offered remedial English for credit. Of those offering remedial English for credit 33 percent of universities, 75 percent of teachers colleges, and 54 percent of the total group of respondents allowed this credit to satisfy a part of the requirements of English composition. Forty percent of the universities, 24 percent of state teachers colleges, and 32 percent of all schools questioned offered remedial English without credit. Thirty percent of the universities, 53 percent of teachers colleges, and 42 percent of the combined total offered no remedial English. Eighty-three percent of universities, 10 percent of teachers colleges, and 47 percent of all those responding who offered no remedial English at the time the questionnaire was circulated claimed to have tried it and found it not to have been successful. The author reported that 75 percent of the freshmen at Ohio University who were deficient in English were saved for successful college work by a program of remedial English.

Curriculum

Little true research dealing with the curriculum in English was reported during the three-year period of this review. A few analyses of courses of studies and more reports of practices in developing curriculum material were published. Stanton (50) asked ninety-four high schools (from which Denison University regularly draws college students) to send detailed syllabi of English courses and lists of textbooks used and to indicate the grade level at which those materials were utilized by the school. She found that from one-half to two-thirds of the time spent in high-school English in the freshman and sophomore years was devoted to grammar and composition and the remainder of the time was devoted to literature. For the last two high-school years the time allotments were reversed, and some schools spent no time on writing skills during these years. The Wisconsin language arts investigation (38, 40) gives much detailed information regarding curriculum practices in high schools and elementary schools for the area studied.

Sensabaugh (45) reported a survey of English courses of study by committees of the College English Association of the Bay Area and the California State Association of Teachers of English. Personal interviews and questionnaires were used to determine what courses of study were in use in California. Findings indicated no uniform principles of sequence operating in elementary and high schools. No systematic approach to the development of skill in writing was apparent in the courses of study. Great variation and large numbers characterized the aims, many of which were considered to be not possible of attainment. Contributions by Smith (47, 48) gave basic principles which should be very helpful to those

interested in curriculum research. She quoted experimental evidence to support a number of basic considerations. Hildreth (25) summarized trends in emphasis in language for the elementary school, Sterling (51) listed principles which should govern the sequence of growth in language ability, and Pooley and Williams (40) gave much information on curriculum practices and methods in the elementary and secondary schools of Wisconsin.

Vander Werf (58) reported the results of correspondence with prospective students of senior-high-school English during the summer preceding the opening of school. Students were asked to tell what they would like to study the following year, suggestions not necessarily being restricted to English. He concluded (a) that a teacher can never know what his students are thinking unless he asks them, (b) that students do not object to difficult work that interests and helps them, (c) that students respect the courageous teacher who tries the stuff traditionally thought outside the scope of the English class, and (d) that students want their classroom experiences linked with life and their social relationships with people.

Mechanics of English

In Great Britain Macauley (33) constructed a series of tests of grammatical ability with reliability of $.92 \pm .01$ and set up 50 percent as a standard of achievement. The tests were administered to pupils who had completed the primary school, to certain classes in the junior-secondary school, and to pupils in the first three years of the senior-secondary school. Few primary pupils, few junior pupils, and only the best of senior-secondary pupils reached the 50 percent standard. At the end of the third year of the senior-secondary school the median score was below the 50 percent standard. The purpose of the study was to discover how difficult the subject of grammar was for the primary pupil. He concluded that formal grammar should not be taught in the primary school nor in the junior-secondary school and should be taught to only the best students in the senior-secondary school.

Pooley (39) reported that high-school teachers were disturbed because children coming from the junior-high school and the elementary grades did not know any grammar. He indicated that this situation is as it should be, for the younger children have no need of grammatical analysis. Furthermore, he doubts that they are mentally equipped to profit from grammatical instruction. Time spent on grammatical principles in Grades V to VIII inclusive actually impedes rather than advances development in communication skills.

Cook (5) indicated that the place of grammar is largely inside the teacher's head for use when needed, that grammatical concepts should be introduced deductively, that these concepts must be taught continuously at all levels, and that the methods used to teach language improvement

should be positive; that is methods should be based on resources of language and not on detection and correction of errors. She supports her position by illustrations of experimentation with the method.

Kaulfers (28) furnished helpful principles for teaching functional grammar. Since time spent on labels leaves little time for practice in communication, since the child cannot be expected to fit grammar learned in isolation into communication, and since exercises to learn labels are devoid of ideas or content worth communicating, he would subordinate the teaching of grammatical terms to emphasis on speaking and writing. He would teach grammar by encouraging student expression of personal experiences and introducing the student to correct usage by reference to the work done by the student. In other words, in order that the teacher can accomplish instruction in grammar and terminology these concepts must have something in the child's experience to which they may be attached.

Warriner (60) reported the results of an experiment with eleventh-grade students who were given an examination in English mechanics after they had completed a year of tenth-grade work in English in which heavy emphasis had been placed on mechanics of grammar. The passing hurdle at the end of the tenth grade still left fifteen to twenty pupils who had to be given a full year of special class work. His data showed improvement of pupil ability to pass tests of mechanics but indicated that the presence of such ability is not proof of its transfer to creative writing.

Pooley (39) furnished lists of errors commonly made by students at junior- and senior-high-school levels but warned that these lists of errors should not be the basis for instruction in English. He insisted that the purpose of language is to communicate, and not to learn rules. The rules of usage must be taught to expedite communication but never to get in its way. He reported that in the Wisconsin survey of language arts, nine out of ten classes were correcting usage in notebooks, workbooks, or language tests, using sentences having little significance to the children. In only one out of ten classrooms were the children learning language by writing or speaking and by correcting and improving their own language difficulties.

McGann (34) administered the *Cooperative English Test A*, Form Q, to ninety-seven freshmen at Clark University. Errors in mechanics of English were ranked in order of percent of failure. She found that (a) most errors in grammar were due to a lack of knowledge of the various forms that the subject of a sentence may take, which ignorance resulted in the wrong choice of verb or in errors of agreement between subject and predicate; (b) most errors in punctuation involved the use of quotation marks in direct discourse, of the apostrophe in plural possession, and of the semicolon used in place of a conjunction; and (c) most errors in capitalization were made on section of the country, family relationships followed by the proper name, and adjectives derived from proper nouns.

Wykoff's findings (61), based on data secured from a study of 5125 cases collected over a six-year period at Purdue University, indicated to

him that "students with a knowledge of usable grammatical terms belong to a group which will, at least 90 percent of the time, write better themes than students with a smaller amount of knowledge of such grammar." He found the same situation to obtain in regard to students possessing workable knowledge of the principles of punctuation.

Analyses of types and frequency of errors made by University of Iowa students in a business writing class was reported by Aaro (1). The range of intelligence quotient as measured by the *Otis Quick-Scoring Mental Ability Test* was 94 to 128 and the median was 116. The percentile rank of the class on the *English Training Test* of the *Iowa Placement Examinations* was 70. The median of formal schooling was fifteen years, and all except one student had had four years of high-school English and at least six semester hours of college English. He analyzed 224 letters for errors and classified them by using the Hotchkiss and Kilduff error analysis chart. A list of the most common errors was given. Letters written out of class had fewer errors than those written in class.

A study of English composition errors made by college freshmen in a class test in human growth and development was reported by Lange (30). Altho the students had a median score slightly above average for small liberal arts colleges on the *American Council Cooperative English Achievement Tests*, Lange reported that he found many gross errors in spelling and composition in the work done by the students. The median number of words on test papers was 450 and the range was 192 to 860. Thirty-eight percent of 100 papers sampled had at least one sentence without a subject or included phrases and clauses punctuated so as to make highly elliptical sentences. Eighteen percent ran sentences together without punctuation or capital letters. Lange reported that only with difficulty, imagination, and guessing could many of the papers be read at all.

In a series of four separate magazine articles (18, 19, 20, 21), Guiler reported studies of the disabilities of 1267 college freshmen entering Miami University in 1939. He used the Guiler-Campbell *Analytical Survey Test in English Fundamentals* to collect data on student disabilities in capitalization (18), sentence structure (19), grammatical usage (20), and punctuation (21). Freshmen in the School of Business Administration showed greatest disabilities (lowest mean scores) on all four phases of the test. Students in the College of Arts and Science and in the School of Fine Arts had highest mean scores in sentence structure and grammatical usage. School of Education students had highest mean scores in the punctuation test items and Education and Arts and Science division students had highest mean scores in capitalization phases of the test. First-year girls excelled entering college boys on all phases of the test.

Guiler's findings as reported in these articles also showed college students to be seriously deficient in all phases of the test. In sentence structure approximately one-half of the students were below the twelfth-grade norm, more than one-third were below the tenth-grade norm, and more than one-tenth were below the eighth-grade norm. In grammatical usage 46

percent of the freshmen were below the twelfth-grade norm, 31 percent were below the tenth-grade norm, and 4 percent were below the eighth-grade norm. In punctuation 50 percent were below the typical twelfth-grade student, 21 percent below the typical tenth-grade student, and 6 percent were below the typical eighth-grade student. In capitalization one-half did not reach the twelfth-grade norm, two-fifths were below the eleventh-grade norm, and one-third were below the tenth-grade norm. Guiler found that test items on each phase of the test presented varying degrees of difficulty and that students varied widely in scores on each phase of the test. In general, students displayed marked inability to judge correctness or incorrectness of items but displayed even more difficulty with the selection of the appropriate grammatical principles to be applied. Principles causing greatest difficulty in sentence structure were (a) every pronoun must have an antecedent definitely expressed and (b) a clause used as a subject or predicate noun must be the equivalent of a noun.

In grammatical usage, the following principles proved most difficult: (a) a definite antecedent should be supplied when it is lacking in sentences beginning with reference words like "this," "that," and "it," (b) a gerund phrase must clearly attach itself to the nouns or pronouns which it modifies, and (c) a collective noun requires a singular verb when it is considered as a whole and a plural verb when the parts are considered separately.

In punctuation, greatest difficulty was encountered in the following situations: (a) use of the colon after an expression which serves as a formal introduction to something that follows, (b) use of the apostrophe to denote possession, (c) use of the comma to set off a nonessential element at the beginning of a sentence, and (d) use of the comma to set off words used in direct address.

In the capitalization phase of the test, most difficulty was noted in students' ignorance of whether or not to capitalize (a) "resolved" and the first word following it in the title of debate, (b) abstract words strongly personified, (c) names of notable historical periods, and (d) names of notable historical events.

Teaching English Composition in Elementary and High Schools

De La Hunt (7) tabulated returns from 174 Minneapolis intermediate-grade teachers to a questionnaire regarding teaching practices in the elementary schools. She attempted to determine which of the skills necessary for effective communication were given emphasis, whether the skills were taught as communication or merely as segregated skills, whether constructive teaching in these skills accompanied the use of them in the classroom, and what degree of independence was exhibited by pupils in the use of these tools. As a result of her work she found that work-type aspects of language and reading were most frequently used, that creative writing

came low in the list of frequencies, that certain aspects of social uses of language were frequently emphasized while others were neglected, that skills were given attention in other subjects in each grade, and that isolated practice was more common in the fourth grade than in the other three studied. The evidence seemed to indicate also that there was a lack of conscious effort on the part of teachers to think of composition skills in their relation to effective communication.

Pooley (38) found that about one-fourth of the total lessons in elementary schools were devoted to discussion of materials for writing. Forty-eight percent of the time in rural schools and 37 percent of the time in city schools was devoted to review of rules, application of usage, study of textbooks, and blackboard exercises. Thirty-eight percent of city teaching time and 25 percent of rural time was devoted to actual writing, including revision and correction.

Kidd (29) published a report of informal experimentation with approaches to creative writing with primary children.

Van Bruggen (57) investigated the rate of the flow of words during composition writing and studied the relation of flow of words to factors within the compositions and to academic, environmental, and personal qualities of eighty-four pupils in Grades VII, VIII, and IX. Pupils were asked to write two compositions, the first a reproduction of a story previously read and the second a composition on one of six suggested topics. Records of the time required for actual writing of each word and the number and length of pauses between words were obtained by means of a motor-driven time-recording kymograph. The *Cooperative English Test*, *Effectiveness of Expression*, *Lower Level*, the *Cooperative English Test*, *Mechanics of Expression*, and certain tests of mental ability, of aspects of personality, and of prose appreciation were administered to the children. Correlations revealed little or no relationship between test scores and flow of words. When pupils were grouped on basis of records on flow of words it was found that pupils who indicated by standard test scores that they were low in reading and spelling abilities also had a slow flow of words during writing; the best compositions were written in thought units with a rhythmic flow of words and few short pauses, 83 percent of the significant pauses being at the end of thought units; and that poor compositions show only 69 percent of pauses at the end of thought units, these pauses being of longer duration than those found in the writing of good compositions. He also reported that pupils with right-hand and right-eye dominance tended to compose with fewer and shorter pauses than those with left-hand and left-eye dominance.

Swenson and Caldwell (52) analyzed the content of letters written by children in Grades IV thru XII and found an increase in the number of topics discussed by children in their letters and in average length of each topic for consecutive grade levels. When they were free to choose topics about which to write, children at various grade levels tended to select similar general topics. As they advanced from grade to grade children

indicated thru their letters a broadening interest in people and a growing interest in the larger community. Children tended to discuss events which occurred in the immediate past or present, to use narration rather than description in treatment of subjectmatter, and to discuss topics realistically rather than imaginatively and seriously rather than humorously. However, the investigators reported a general trend toward increase in use of description, imagination, and humor as children grow older.

Hildreth (25), Pooley (39), and Dakin (6) offered helpful suggestions for research workers and teachers on the teaching of composition and English usage at elementary- and secondary-school levels.

Teaching Composition in Colleges

Mathews and others (36) reported a series of experiments using control and experimental groups to determine the importance of reading in freshman rhetoric classes at the University of Illinois. In one study students were alike in scholastic aptitude as measured by the *American Council Psychological Aptitude Examination*, but students earning "D" grades in rhetoric were low in comprehension and rate of reading. Experimental and control groups were set up to test the use of reading materials and to determine relative value of certain materials of reading together with study questions relative to English usage. In some portions of the study only subjective measures were used, but where objective measures were used evidence seems to point toward the probability that when the teaching of reading is accompanied by proper emphasis on grammar there is improvement both in rate and comprehension and in English usage.

Lokke and Wykoff (32) set up experimental groups of college students who wrote from thirty-two to thirty-four themes per semester (an average of two per week) and used as control, groups of students who wrote sixteen themes per semester (an average of one per week). The experimental groups had less formal instruction in grammar, punctuation, and spelling than did the control groups. Control and experimental groups were matched on English placement test percentiles and on intelligence. Attempts were made to keep instructional materials the same in control and experimental groups. They reported that as a result of this program of extensive writing by means of double writing, pupil failures were reduced 66 percent and final semester grades were raised 60 percent. Forty percent of the students reached the limit of achievement by the time they had written from twelve to fifteen themes. The report of the experiment suggests to the reader that having the students do more writing produces better results than does submitting them to formal instruction.

Virtue (59) reported results on seven years practice in giving proficiency examinations to upper-classmen at the University of Kansas. It was a policy of the school that sometime before they were to be graduated students should be screened on composition ability and that those not passing the screening test should be required to take a special course

designed to teach them to write acceptably. During the seven-year period covered by the report 2700 students took the special course. Of this number 22 percent failed the course once, 7 percent failed it twice, and approximately 2 percent failed it three or more times. Men contributed more than three-fifths of the failures. Four percent of the students ranking in the highest decile on the *American Council Psychological Examination* failed the proficiency examination, as did 20 percent of those ranking between the 50th and 90th percentiles. Twenty-two percent of all students tested failed the proficiency examination.

Visual Aids

In an experiment to determine the feasibility of using filmstrips to teach mechanics of English, Jones (26, 27) assigned each of four experienced instructors to one group in which filmstrips were used and to one in which such aids were not used. Students making up the groups were not specially selected. Both groups used workbooks, themes, and student-instructor conferences in an effort to improve mechanics of English. Achievement tests in mechanics were given at the beginning, in the middle, and at the end of the experimental period. Jones reported that visual instruction significantly raised the standard of achievement.

The London *Times Educational Supplement* (56) carried a report of an experimental study using a Pathe-produced three-minute silent film, "What Happens Next?" The student was asked to describe not what he saw but how he thought the unfinished episode projected on the screen should end. The film was shown without oral comment to 140 children. The content of compositions written was extremely imaginative. Good students wrote excellent stories and poor students did better work than usual. Stories were alive and real enthusiasm was pronounced. Able students seemed over-stimulated, as a result of which, performance in mechanics and spelling suffered. Among the less able students there seemed to be a "freeing of language and ideas."

While research on the instructional effectiveness of motion pictures is not presented in this chapter, the attention of research workers who may be interested in experimenting with teaching communication skills with the aid of motion picture films is called to two articles, one by Smith (49), who presented evidence indicating that teaching grammatical terms to children of normal intelligence or below was futile and who suggested the production of films to show how the language works; the other by Flynn and Corey (12), who described the use of sound films in the teaching of communication skills.

Evaluation and Testing

Swenson and Caldwell (53) secured the help of experienced teachers as judges and constructed a communication scale for evaluation of letter writing. Correlation coefficients for ratings by six pairs of judges were reported

as ranging from .83 to .89 where letters written by children in Grades IV thru XII were used. The scale was constructed to emphasize the communication factor rather than mere English usage. In addition to finding marked variability in communication ability among children in each grade, they found encouraging improvement in ability from grade to grade and a positive relationship between intelligence level and ability in written composition.

A college freshman composition paper which was rated as failing was submitted by McKean (35) to fourteen college teachers of English and to eight nonteachers. Ten teachers passed the student while four teachers and all of the nonteachers failed him. Little or no agreement was evident in the reasons given for passing or failing, a fact which seems to indicate a need for objective standards for evaluating compositions.

Diederich (8) presented a technic calculated to increase the reliability of teachers' marks on compositions written at the high-school and college levels. According to his technic marks should be based on at least two essays and should be made in accordance with criteria which have been formulated and written down in advance. Each essay should be graded by two readers and rechecked to reach a reasonable compromise in case of disagreement.

Gerber (15) found teachers' judgments of the value of themes to be more reliable than any objective tests available at present. He reported coefficients of reliability for four readers of .88 for exposition themes and .91 for argumentative themes. The USAFI *Test on Correctness and Effectiveness of Expression*, having a correlation reliability of .91, correlated .72 with total scores earned on expository themes and .71 with total scores earned on argumentative themes. Gerber also reported data showing that "A" and "B" students in communication tests earned high grades in literature and speech courses. The information presented may not be evidence of transfer but rather of the operation of intelligence and high linguistic ability factors as accounting for achievement in both areas.

A special forty-minute test on vocabulary, reading, and writing was given to the 25 percent of University of Texas freshman students ranking highest on the *American Psychological Examination* and to the 10 percent of the students ranking highest on the *Cooperative English Test*. Cline (4) indicated the use of this technic to give superior students advanced standing in English courses.

Gerber (15), Diederich (9), McGann (34), Hildreth (25), and Guiler (18, 19, 20, 21) reported successful experimentation with diagnostic testing and remedial instruction. Diederich (9) used text exercises for instruction purposes.

McGann (34) tested the relative efficiency of individual and group methods of teaching by setting up three groups of students equated on the basis of median and average scores earned on an English test and on a test of scholastic aptitude. Group I was taught by the individual conference method, Group II was taught by a group method, and Group III

served as a control. Groups I and II were given remedial instruction based on samples of the thirty most commonly committed errors in grammar, punctuation, and capitalization made by the students on tests in these areas. Final tests were also given. Greater gains were reported for both experimental groups over the control group and greater gains were also reported for the group taught by the individual conference method over the group taught by the group method. However, the mean differences in the groups were not statistically significant.

Teacher Training

Data on the training of teachers of English was furnished by Pooley and Williams (40), Sensabaugh (45), and Grommon (17). The teachers colleges of Wisconsin were studied by Pooley and Williams and a report of teacher education in fifteen of the eighteen accredited teacher-training institutions in California was furnished by Grommon. Eleven of the California institutions were visited, a questionnaire being used as the basis for study, while data for the remaining four were collected by representatives of the institutions marking the questionnaires.

In all studies reported, education for prospective English teachers did not seem to be particularly well planned to meet the needs of students. Recommendations for improvement included (a) fostering better cooperation between the departments of English and education; (b) establishing a selective manner of recruiting candidates; (c) providing for better training in literature, speech, modern grammar, usage, and composition; (d) using successful former secondary-school English teachers as college instructors; (e) providing for observation of student teachers by special methods teachers; (f) using successful English teachers as special methods teachers; (g) acquainting students with materials and activities; (h) requiring student practice in planning an entire semester course; (i) establishing procedures for follow-up of the teacher into the classroom; and (j) establishing inservice education for graduates.

Use of English and Success in College

Studies by Ashmore (2) and Shaffer (46) showed the value of English for predicting success in college. Ashmore secured permanent records of high-school grades earned and photostatic copies of college records for graduates from one high school over a ten-year period. Success in high-school English was the best indication of achievement in college English, success in high-school science ranking second in predictive value of success in college English. For one five-year-period grouping of students, correlations showed English and social studies grades in high school had equal value for prediction of social studies grades in college; in another period grouping, English proved to have greatest value for predicting success in college social studies. English seemed to have more weight than any other

high-school subject in predicting first-year college grade averages. Shaffer (46) found English deficiency a constant handicap to student success in college. A deficient student was defined as one who ranked in the upper three quartiles on the *American Council Psychological Examination* and at the same time ranked in the lowest decile of his class on the *Cooperative English Test*. Each deficient student was paired with a nondeficient student of the same sex and the same college. A few of the findings reported are as follows:

(a) Deficient students passed significantly fewer hours of work than nondeficient students in their first and third semesters in college. The difference in means of the two groups decreased markedly from the first to fifth semester, at which time means were practically identical.

(b) Deficient students earned significantly fewer credit points than nondeficient students for the first four semesters but differences in the two groups decreased from the first to the fifth semester.

(c) English deficiency was a significant factor in determining grades received in economics, English composition, English literature, foreign languages, government, history, laboratory sciences, psychology, and sociology, but was not a significant factor in grades received in accounting, mathematics, military sciences, music, and physical education.

(d) The type of examination used, whether essay or objective, seemed not to affect grades received by deficient and nondeficient students.

(e) There were significant differences between means of first semester deficient and nondeficient students on neurotic tendency, introversion-extroversion, confidence in self, sociability, and dominance-submission scales.

(f) No significant differences were found in attitudes of the two groups toward the university.

(g) More deficient than nondeficient students were found to be participating in group activities.

Vocabulary

Rinsland (41) found 25,632 different words as a result of tabulating 6,000,000 running words taken from compositions written by 200,000 school children. He claimed that this vocabulary furnishes 90 percent of the vocabulary for Grade VIII and 98 percent for Grade I. Fogler (13) presented a case for a basic written vocabulary. He had fifth- and sixth-grade children write compositions under free conditions and found agreement of 82 and 84 percent respectively with the Rinsland list in 30,000 running words written by the children. He also checked Rinsland's word list against other word lists and found agreements of from 34 to 67 percent.

Seegers (44) summarized research dealing with vocabulary development covering the years 1942 to 1945. He concluded that studies tended to confirm rather than to alter the conclusions and suggestions of previous publications; that in both testing and development, attention is paid to area as well as depth of meaning rather than simply to single and isolated meanings; that in some pieces of research, emphasis was placed on the

use of content for vocabulary development while in others warnings against too much reliance upon content for vocabulary development was emphasized; that studies showed well the effect of experience, environment, and stimulus upon the use of language and upon the development of vocabulary; and that children will use words intelligently if thru concrete experiences or other suitable stimuli they are encouraged to express themselves or made to feel the need for expression.

Fleisch (11) demonstrated by means of tests that when children used labels to describe pictures and drew pictures to illustrate words they had written their vocabularies were advanced two or three years beyond their grade level.

Schulman and Havighurst (43) administered the Seashore-Eckerson *English Recognition Vocabulary Test* to all children of one city born in 1932 and to all pupils of Grades IX and X. The 1932 group who had previously been given the Thurstone *V Factor Test* and the *Iowa Silent Reading Test* were classified into social classes and were also placed on a socio-economic scale. It was found that children of higher social status made higher average scores on a vocabulary test than children of lower status. Coefficients of correlation of vocabulary size was .46 with socio-economic status, .79 with the Thurstone *V Factor*, and .75 with the *Iowa Silent Reading Test*. No reliable difference was found in the vocabulary of boys and girls or between urban and rural pupils.

Swineford (54) found no shift from general to verbal factors in the correlations of general factor scores at the lower grade with verbal-factor scores at the higher grade level.

According to evidence presented by Fox (14), vocabulary ability did not decline with age for the groups tested. She administered vocabulary lists to thirty subjects between the ages of seventy and seventy-nine years and to thirty subjects between the ages of forty and forty-nine years who constituted a sample of the general population at those ages with regard to amount of formal education and socio-economic status. Group multiple-choice word lists and individual oral multiple-choice and oral definition tests were used. Definition tasks were found to be more difficult than individual recognition tasks. A statistical analysis of the half-credit definition scores for the two age groups indicated no significant difference in quality of definitions given by older and by younger subjects.

Bibliography

1. AARO, RUTH. "Types of Errors Found in Business Letters." *National Business Education Quarterly* 14: 23-28; May 1946.
2. ASHMORE, BEN. "High School Teachers' Marks as Indicators of College Success." *Journal of the American Association of Collegiate Registrars* 21: 219-30; January 1946.
3. BOND, GILBERT L. "A Postwar Program for the Remedial-English Student." *College English* 7: 466-70; May 1946.
4. CLINE, CLARENCE L. "The New Plan of Freshman English Advanced-Standing Examinations at the University of Texas." *College English* 9: 203-206; January 1948.

5. COOK, LUELLA. "Teaching Grammar and Usage in Relation to Speech and Writing." *Elementary English Review* 23: 193-98; May 1946.
6. DAKIN, DOROTHY. *How To Teach High School English*. Boston: D. C. Heath and Company, 1947. 592 p.
7. DE LA HUNT, LOIS. "Are We Teaching Communication?" *Elementary English Review* 23: 295-98; November 1946.
8. DIEDERICH, PAUL B. "The Measurement of Skill in Writing." *School Review* 54: 584-92; December 1946.
9. DIEDERICH, PAUL B. "Teaching English with Test Exercises." *School Review* 55: 80-86; February 1947.
10. ELLIS, AMANDA M. "Do They Speak, Read, and Write Well?" *News Letter of the College English Association* 8: 1-6; December 1946.
11. FLEISCH, MARION. "Pictures Help Vocabulary Growth." *Elementary English Review* 22: 317-20; December 1945.
12. FLYNN, HELEN and COREY, STEPHEN M. "Teaching Communication Skills through the Use of Sound Films." *School Review* 53: 348-52; June 1945.
13. FOGLER, SIGMUND. "The Case for a Basic Written Vocabulary." *Elementary School Journal* 47: 43-47; September 1946.
14. FOX, CHARLOTTE. "Vocabulary Ability in Later Maturity." *Journal of Educational Psychology* 38: 482-92; December 1947.
15. GERBER, JOHN C. "Testing and Evaluation in the Skills of Communication." *College English* 9: 375-84; April 1948.
16. GREENE, HARRY A. "Direct versus Formal Methods in Elementary English." *Elementary English* 24: 273-85; May 1947.
17. GROMMON, ALFRED H. "The Training of Teachers of English for the Secondary Schools of California." *Educational Forum* 12: 87-102; November 1947.
18. GUILER, WALTER S. "Capitalization Disabilities of College Freshmen." *Journal of the American Association of Collegiate Registrars* 22: 317-27; April 1947.
19. GUILER, WALTER S. "Disabilities of College Freshmen in Sentence Structure." *School Review* 54: 480-87; October 1946.
20. GUILER, WALTER S. "Grammatical-Usage Disabilities of College Freshmen." *Journal of the American Association of Collegiate Registrars* 22: 49-57; October 1946.
21. GUILER, WALTER S. "Punctuation Disabilities of College Freshmen." *Journal of the American Association of Collegiate Registrars* 22: 183-91; January 1947.
22. HATFIELD, W. WILBUR. "Progress in Teaching English." *Bulletin of the National Association of Secondary-School Principals* 30: 5-10; February 1946.
23. HAYS, EDNA. "The College Teaching of English: A Bibliography." *College English* 8: 410-34; May 1947.
24. HAYS, EDNA. "The College Teaching of English: A Bibliography." *College English* 9: 430-53; May 1948.
25. HILDRETH, GERTRUDE. *Learning the Three R's*. Second edition. Minneapolis: Educational Publishers, 1947. 897 p.
26. JONES, JOSEPH. "Experimental Filmstrips in English Fundamentals." *Educational Screen* 25: 499-501; November 1946.
27. JONES, JOSEPH. "Experimental Filmstrips in English Fundamentals." *Educational Screen* 25: 561-62, 568; December 1946.
28. KAULFERS, WALTER VINCENT. *Four Studies in Teaching Grammar from the Socio-Psychological Viewpoint*. Stanford University, California: Stanford University Press, 1945. 47 p.
29. KIDD, ELNORA. "A Digest of Approaches to Creative Writing with Primary Children." *Elementary English* 25: 47-53; January 1948.
30. LANGE, PHIL C. "A Sampling of Composition Errors of College Freshmen in a Course Other than English." *Journal of Educational Research* 42: 191-200; November 1948.
31. LOBAN, WALTER. "Studies of Language Which Assist the Teacher." *English Journal* 36: 518-23; December 1947.
32. LOKKE, VIRGIL L. and WYKOFF, GEORGE S. "Double Writing in Freshmen Compositions: An Experiment." *School and Society* 68: 437-39; December 1948.
33. MACAULEY, WILLIAM J. "The Difficulty of Grammar." *British Journal of Educational Psychology* 17: 153-62; November 1947.
34. MCGANN, MARY. "Diagnostic Testing and Remedial Teaching for Common Errors in Mechanics of English Made by College Freshmen." *Journal of Educational Psychology* 38: 499-503; December 1947.

35. MCKEAN, KEITH. "If the Shoe Fits." *College English* 8: 255-61; February 1947.
36. MATHEWS, ERNST; LARSON, ROBERT R.; and BUTLER, GIBBON. "Experimental Investigation of the Relation between Reading Training and Achievement in College Composition Classes." *Journal of Educational Research* 33: 499-505; March 1945.
37. POOLEY, ROBERT C. "Contributions of Research to the Teaching of English." *English Journal* 37: 170-75; April 1948.
38. POOLEY, ROBERT C. "Language Arts Survey in Wisconsin Elementary Schools." *Elementary English Review* 23: 8-14; January 1946.
39. POOLEY, ROBERT C. *Teaching English Usage*. New York: D. Appleton-Century Company, 1946. 265 p.
40. POOLEY, ROBERT C. and WILLIAMS, ROBERT D. *The Teaching of English in Wisconsin*. Madison: The University of Wisconsin Press, 1948. 196 p.
41. RINSLAND, HENRY D. *A Basic Vocabulary of Elementary School Children*. New York: The Macmillan Company, 1945. 636 p.
42. SCHOOL AND SOCIETY. "Nationwide Survey and Remedial Program in English Usage." *School and Society* 66: 311; October 25, 1947.
43. SCHULMAN, MARY JEAN and HAVIGHURST, ROBERT J. "Relations between Ability and Social Status in a Midwestern Community: Size of Vocabulary." *Journal of Educational Psychology* 38: 437-42; November 1947.
44. SEEGER, J. CONRAD. "Recent Research in Vocabulary Development." *Elementary English Review* 23: 61-68; February 1946.
45. SENSABAUGH, GEORGE F. "A State Survey of English Courses of Study." *English Journal* 37: 229-35; May 1948.
46. SHAFFER, ROBERT H. "The Effect of English Deficiency upon a Student's Adjustment in College." *Bulletin of the School of Education, Indiana University* 24: 5-34; January 1948.
47. SMITH, DORA V. "Basic Considerations in Curriculum-Making in the Language Arts." *English Journal* 37: 115-26; March 1948.
48. SMITH, DORA V. "The English Curriculum in Perspective: The Elementary School." *Elementary English Review* 23: 45-54; February 1946.
49. SMITH, DORA V. "Films for Teaching the English Language." *Educational Screen* 27: 173-74; April 1948.
50. STANTON, ELIZABETH B. "Another Curriculum Adventure." *School and Society* 64: 462-64; December 28, 1946.
51. STERLING, EDNA L. "Developing a Course of Study in Language Arts." *Elementary English Review* 23: 165-69; April 1946.
52. SWENSON, ESTHER J. and CALDWELL, CHARLES G. "The Content of Children's Letters." *Elementary School Journal* 49: 149-59; November 1948.
53. SWENSON, ESTHER J. and CALDWELL, CHARLES G. "The Process of Communication in Children's Letters." *Elementary School Journal* 49: 79-88; October 1948.
54. SWINEFORD, FRANCES. "Growth in the General and Verbal Bi-Factors from Grade VII to Grade IX." *Journal of Educational Psychology* 38: 257-72; May 1947.
55. THAYER, ALBERT R. "G.I. English Was Not Good." *Scholastic* 52: 14; April 5, 1948.
56. TIMES EDUCATIONAL SUPPLEMENT. "Visual Stimulus to Compositions: Experimental Film." *Times Educational Supplement* No. 1676: 291; June 14, 1947.
57. VAN BRUGGEN, JOHN ANDREW. "Factors Affecting Regularity of the Flow of Words during Written Composition." *Journal of Experimental Education* 15: 133-55; December 1946.
58. VANDER WERF, LESTER. "What English Students Want To Study." *English Journal* 36: 377-78; September 1947.
59. VIRTUE, JOHN B. "The Proficiency Examination in English Composition at the University of Kansas." *College English* 9: 199-203; January 1948.
60. WARRINER, JOHN E. "Hurdling English Mechanics." *English Journal* 35: 447-50; October 1946.
61. WYKOFF, GEORGE S. "The Relation of a Knowledge of Grammar and Punctuation to Writing." *Educational Administration and Supervision* 31: 385-93; October 1945.

CHAPTER VI

Research in Speech Education

HOWARD GILKINSON

SPEECH behavior is of interest in several academic divisions and a considerable number of investigations are reported in print each year. It is somewhat difficult to decide which among these studies may be classified as educational research. Theoretically all facts about speech behavior may be of interest and importance to teachers and administrators concerned with the development of students' skill in speech. However, some investigations are more directly concerned with speech education than are others, and it was chiefly on the basis of their relation to speech education that the following studies were chosen for this review. Dow (11) has abstracted a number of unpublished studies which are not further reviewed in this chapter.

Effects of Speech Training

A few of the studies published during the last three years dealt quite directly with the effects of speech training in relation to selection of students, conditions, or methods of teaching. Norvelle (30) compared the improvement made by university students enrolled in a public speaking course with that of extension students taking the course. The latter seemed to improve more than the former, but the differences in average ratings were not analyzed for statistical significance. The apparent superiority of the extension students was ascribed to stronger motivation. Barnett (2) found no significant differences among three methods of teaching voice and articulation: ear training, phonetics, and oral reading. All three groups gained significantly in speech as well as in emotional extroversion as measured by the *Minnesota T. S. E. Inventory*. Correlations of .69 and .79 were found between changes in personality scores and changes in speech effectiveness.

Thorn (38) described the application of the nondirective type of counseling to the problems of two persons who had emotional difficulties in speech situations. Williamson (40) found that the most common cause of hoarse-voice was the throat tension resulting from the effort to speak at a level far below optimal pitch. The subjects were treated thru group instruction emphasizing optimum pitch, voice and breathing exercises, and speech projects. The elimination of hoarseness was claimed for sixty-two of a total of seventy-two cases.

Shoup (33) described training procedures employed in a course in voice communications for Army Air Forces cadets and Black (3) presented evidence on the effectiveness of such procedures.

Extracurriculum Activities in Speech

Dietrich (9) made a questionnaire survey study of dramatic programs at 157 colleges and universities with enrolments of more than 1000 students. Data were presented on the amount of dramatic activity, types of drama, and sources of plays. Despite their acknowledged importance, few plays for children were produced. In another survey study Fest (14) found that participation in college forensics has not kept pace with expanding enrolments.

Smith (34) found that high-school students participating in drama and debate were superior to the school population on social adjustment as indicated by the Bell Inventory. He suggested that participation in extracurriculum activities is a symptom rather than a cause of good social adjustment.

Teacher Training and Placement

A committee of the Speech Association of America made a survey of speech training in teachers colleges. The report (35) provided data on a number of items, including the use of speech tests in selecting students for teachers colleges, speech courses offered, and extracurriculum activities. Reid (32) made a study of staff needs in departments of speech and the number of graduate degrees being granted in speech and concluded that the supply of teachers is not likely to keep up with the demand. Finlan (16) The need for teachers with broad training was emphasized. Finlan (16) also concluded that since the college teacher of speech is often called upon to teach in at least four or five speech areas he should have a broad training background.

Judging and Testing

Borchers (5) presented a codified list of forty-one items used in describing the speech behavior of seventh-grade children. Observers memorized the list and used code numbers in recording their observations. Findley (15) reported on a formula for deriving an index of participation in discussion. Frequencies of participation for individuals in a discussion group constitute the basic data. A high score indicated an even distribution of the amount of participation among the individuals; low scores indicated domination of the discussion by a few individuals. Ewing (13) provided a formula for deriving a mathematical index of the accuracy with which the main ideas of a speaker are communicated to his listeners.

Blattner (4) described the development of a group test of listeners' ability to distinguish correct from incorrect pronunciation of words. The investigator concluded that the test is satisfactory so far as reliability and convenience are concerned, but that its validity as a measure of a speaker's ability to pronounce words needs further investigation.

Haagen (17) provided a brief description of the development of an

intelligibility test used for research and voice communication training in the Army Air Corps during the war.

A study of students as raters of public speaking was made by Thompson (37). He found that among a number of indexes of intellectual ability, personal adjustment, and skill with language, only scholastic aptitude and semester grades correlated significantly with students' skill in rating speech performances.

In a study by Knower and Emerson (26) voice recordings made at the beginning and end of six weeks of speech training were compared by two methods: (a) all recordings were rated in random order and (b) the two recordings for each subject were rated in direct comparison with each other. The authors concluded that the paired comparison method may, altho not necessarily, reveal improvement in voice usage not recognized when single records are rated in random order. Experimental subjects also showed improvement on a test of tonal symbols which had been described by Knower in a previous report (25).

Some reports on tests of listening have been published recently Villarreal (39) developed a test for the specific purpose of measuring the ability of persons whose native speech is Spanish to comprehend connected passages of spoken English. Nichols (29) developed a test of listening comprehension for more general purposes and studied the relationships of listening skill with thirty-eight other variables. Irwin (21) constructed a battery of hearing tests, using connected speech as the stimulus instead of the pure tones commonly employed in audiometry.

Audience Response in Relation to Style or Method of Presentation

A considerable amount of the research in this area during the last three years has been concerned with radio. Heron and Ziebarth (20) compared examination scores made by students who heard lectures in general psychology by radio with scores made by students who heard the same lectures in classroom. Average scores for the two conditions did not differ significantly. Altho 69 percent of the students found that listening to radio was more convenient than going to class, 63 percent of them preferred that the course be given in the classroom rather than by radio. Dietrich (10) made an experimental comparison of dynamic delivery (great enthusiasm, considerable volume, emphatic use of downward inflection, a moderately fast rate, a slightly raised pitch, sustension of vowels) with conversational delivery (reduced dynamics, a quiet genuineness, little use of volume for emphasis, moderate rate and pitch, and an informal manner). Conversational delivery produced a greater shift of attitude than did dynamic delivery, and was less frequently identified as propaganda. The listeners were college students.

Nelson (28) experimented with five rates of speaking, the slowest being 125 words per minute, the fastest, 225 words per minute. Recall tests

were used as the criteria of effectiveness. Analysis of variance did not yield significant differences, altho there was a consistent trend in the data indicating an inverse relationship between listener's ability to recall the content of a newscast and the rate of speaking. Eisenberg and Chinn (12) studied broadcast listeners' preference among three tonal ranges (narrow, medium, and wide) and three volume levels (50, 60, and 70 decibels). The listeners in these experiments showed a preference for a narrow tonal range and for a volume level between 60 and 70 decibels.

Haiman (19) used a comprehension test in comparing the relative effectiveness of a superior speaker and an average untrained speaker in communicating informative material. Both speakers read the same speech. The superior speaker consistently received slightly higher scores than did the average speaker, but the statistical significance of the differences was doubtful in two out of three trials. The listeners in this experiment were motivated by the fact that they knew they would be tested on the information received from the speaker.

Matthews (27) also used information tests in studying the effect of loaded (emotive) language on the ability of listeners to recall the content of speeches. The subjects were college students. Loaded language did not seem to affect their ability to comprehend the material presented in the speeches.

Sponberg (36) made an experimental comparison of climax order and anti-climax order in argumentative speaking. In climax order the argument receiving the greatest space-emphasis was placed last; in anti-climax order that argument was placed first. Shift of opinion, retention, and ratings were used as criteria of effectiveness. The outcomes for shift of opinion and retention favored anti-climax order.

Speech of Children

Pedrey (31) made a study of voice changes in boys between ages eleven and sixteen using 1014 subjects. Voice change correlated .65 with age and .68 with pubic development. Only six of the subjects reported extreme embarrassment over voice breaks.

Brodbeck and Irwin (6) compared the speech sounds of orphanage children with family children in the age range of birth to six months. Differences appeared with respect to frequencies and types of sounds and also with respect to growth patterns.

A number of reports have been concerned with the development of speech during early infancy, i.e., the first two and one-half years of life. An analysis of the number of types of speech sounds indicated that children at ages twenty-nine to thirty months possess twenty-seven of the thirty-five sounds found in adult speech (23). Another report (22) gave an analysis of phonemic frequencies during the first two and one-half years of life, showing a constant rate of increase for the first eighteen months followed by an increasing rate of increase for the remaining period.

Two other reports dealt with types and frequencies of vowels and consonants. The mean number of vowel types was found to exceed the mean number of consonant types during the first year of life (7). At two and one-half years of age the child has acquired practically all the vowels found in adult speech, and about two-thirds of the consonants. Vowel sounds appear more frequently than consonant sounds during the first thirty months of life (24).

Type-token ratios were computed for speech sound samples of children of twelve months of age and under (8). A three-dimensional graph was presented relating token (number of sounds), age level, and type-token ratio (ratio between number of types of phonemes and the total number of sounds in a given sample).

Hahn (18) secured recorded samples of the speech of first-grade children who volunteered to talk during classroom share-and-tell periods. The report of this study gives an analysis of the length of total response, length of sentences, topics, and sentence structure. The author concludes that all types of speaking—good and bad—found among adults are easily recognized in first graders and that at present the school system does little to prevent the same habits from continuing into adulthood.

Correlates of Speech Skill

Albright (1) compared a group of speakers having good articulation with a group of speakers having poor articulation on a number of measures of motor skill. Differences were found favoring the good articulation group on the rhythm synchronometer test and the Miles speech rotor. Tests for tapping speed, steadiness, and rail-walking did not show significant differentiation between the two groups.

Bibliography

1. ALBRIGHT, ROBERT W. "The Motor Abilities of Speakers with Good and Poor Articulation." *Speech Monographs* 15: 164-72; 1948.
2. BARNETT, WYNETT. "An Experimental Study in the Teaching of Voice and Diction through the Ear Training, Phonetic, and Oral Reading Approaches." *Speech Monographs* 15: 142-53; 1948.
3. BLACK, JOHN W. "Effects of Voice Communication Training." *Speech Monographs* 13: 64-68; 1946.
4. BLATTNER, HELENE. "An Experimental Study of the Testing of Pronunciation." *Speech Monographs* 15: 181-87; 1948.
5. BORCHERS, GLADYS L. "An Experiment in High-School Speech Teaching." *Quarterly Journal of Speech* 32: 373-84; October 1946.
6. BRODBECK, ARTHUR J. and IRWIN, ORVIS C. "The Speech Behavior of Infants without Families." *Child Development* 17: 145-56; September 1946.
7. CHEN, HAN P. and IRWIN, ORVIS C. "Infant Speech: Vowel and Consonant Types." *Journal of Speech Disorders* 11: 27-29; March 1946.
8. CHEN, HAN P. and IRWIN, ORVIS C. "The Type-Token Ratio Applied to Infant Speech Sounds." *Journal of Speech Disorders* 11: 126-30; June 1946.
9. DIETRICH, JOHN E. "Dramatic Activity in American Colleges: 1946-1947." *Quarterly Journal of Speech* 34: 183-90; April 1948.
10. DIETRICH, JOHN E. "The Relative Effectiveness of Two Modes of Radio Delivery in Influencing Attitudes." *Speech Monographs* 13: 58-65; 1946.
11. DOW, CLYDE W. "Abstracts of Theses in the Field of Speech and Drama." *Speech Monographs* 13: 116-21, 1946; 14: 212-18, 1947; 15: 234-49, 1948.

12. EISENBERG, PHILIP and CHINN, HOWARD A. "Tonal Range and Volume Level Preferences of Broadcast Listeners." *Journal of Experimental Psychology* 35: 374-92; 1945.
13. EWING, WILLIAM H. "Finding a Speaking-Listening Index." *Quarterly Journal of Speech* 31: 368-70, October 1945.
14. FEST, THORREL B. "A Survey of College Forensics." *Quarterly Journal of Speech* 34: 168-73; April 1948.
15. FINDLEY, WARREN G. "A Statistical Index of Participation in Discussion." *Journal of Educational Psychology* 39: 47-51; January 1948.
16. FINLAN, LEONARD. "The Relation between Training and Teaching Activities of College Teachers of Speech." *Quarterly Journal of Speech* 33: 72-79; February 1947.
17. HAAGEN, C. HESS. "Intelligibility Measurement." *Speech Monographs* 13: 4-7; 1946.
18. HAHN, ELSIE S. "An Analysis of the Content and Form of the Speech of First Grade Children." *Quarterly Journal of Speech* 34: 361-66; October 1948.
19. HAIMAN, FRANKLYN S. "An Experiment in Informative Speaking." *Quarterly Journal of Speech* 34: 355-60; October 1948.
20. HERON, WILLIAM T. and ZIEBARTH, ELMER W. "A Preliminary Experimental Comparison of Radio and Classroom Lectures." *Speech Monographs* 13: 54-57; 1946.
21. IRWIN, JOHN V. "A Battery of Tests of Speech Hearing." *Speech Monographs* 15: 133-41; 1948.
22. IRWIN, ORVIS C. "Development of Speech during Infancy: Curve of Phonemic Frequencies." *Journal of Experimental Psychology* 37: 187-93; 1947.
23. IRWIN, ORVIS C. and CHEN, HAN P. "Development of Speech during Infancy: Curve of Phonemic Types." *Journal of Experimental Psychology* 36: 431-36; 1946.
24. IRWIN, ORVIS C. and CHEN, HAN P. "Infant Speech: Vowel and Consonant Frequency." *Journal of Speech Disorders* 11: 123-25; June 1946.
25. KNOWER, FRANKLIN H. "Studies in the Symbolism of Voice and Action: The Use of Behavioral and Tonal Symbols as Tests of Speaking Achievement." *Journal of Applied Psychology* 29: 229-35; June 1945.
26. KNOWER, FRANKLIN H. and EMERSON, MARJORIE. "Indices of Achievement in Voice Instruction." *Journal of Speech Disorders* 11: 159-63; June 1946.
27. MATTHEWS, JACK. "The Effects of Loaded Language on Audience Comprehension of Speeches." *Speech Monographs* 14: 176-86; 1947.
28. NELSON, HAROLD E. "The Effect of Variation of Rate on the Recall by Radio Listeners of 'Straight' Newscasts." *Speech Monographs* 15: 173-80; 1948.
29. NICHOLS, RALPH G. "Factors in Listening Comprehension." *Speech Monographs* 15: 154-63; 1948.
30. NORVELLE, LEE. "A Comparison of the Improvement of Extension Students with University Students in a Public Speaking Course." *Speech Monographs* 14: 159-64; 1947.
31. PEDREY, CHARLES P. "A Study of Voice Change in Boys between the Ages of Eleven and Sixteen." *Speech Monographs* 12: 30-36; 1945.
32. REID, LOREN D. "Graduate Study and Teacher Placement." *Quarterly Journal of Speech* 34: 177-82; April 1948.
33. SHOUP, FOSTER C. "Training Procedures." *Speech Monographs* 13: 59-63; 1946.
34. SMITH, HENRY P. "The Relationship between Scores on the Bell Adjustment Inventory and Participation in Extracurricular Activities." *Journal of Educational Psychology* 38: 11-16; January 1947.
35. SPEECH ASSOCIATION OF AMERICA. COMMITTEE ON TEACHER EDUCATION. "Speech in Teacher Education." *Quarterly Journal of Speech* 32: 80-102; February 1946.
36. SPONBERG, HAROLD. "The Relative Effectiveness of Climax and Anti-Climax Order in an Argumentative Speech." *Speech Monographs* 13: 35-44; 1946.
37. THOMPSON, WAYNE N. "A Study of the Characteristics of Student Raters of Public Speaking Performances." *Speech Monographs* 13: 45-53; 1946.
38. THORN, KATHERINE. "'Client-Centered' Therapy for Voice and Personality Cases." *Journal of Speech Disorders* 12: 314-18; September 1947.
39. VILLAREAL, JESSIE J. "A Test of Aural Comprehension of English for Native Speakers of Spanish." *Speech Monographs* 15: 121-32; 1948.
40. WILLIAMSON, ARLEIGH B. "Diagnosis and Treatment of Seventy-two Cases of Hoarse Voice." *Quarterly Journal of Speech* 31: 189-202; April 1945.

CHAPTER VII

Art Education

EDWIN ZIEGFELD

THIS is the first postwar review of research in art education which covers work conducted in a time of peace. Tho the summary by Munro and others was prepared shortly after the end of the war it covered research done primarily during the war period. Even tho the arts remained active and vital during the war years, the return to peace brought with it an upsurge of interest and, as might be expected, a shift in emphasis. An increasing interest in art as it relates to personality development and to adjustment seems to characterize many of the writings and investigations, a situation which is doubtless a reflection of the unsettled state of the world. There has also been much concern with the place of art in the total educational program and with the role of art in furthering international understanding. As reflected by the writings and researches of art educators and investigators, this period was characterized by a resumption of interest in the arts in education and by the discovery and identification of its role in education at all levels.

New Directions in Art Education

A survey of recent literature disclosed a considerable body of writing in three areas which are receiving increasing attention from art educators: (a) art in general education, (b) art in relation to peace and international understanding, and (c) the use of the art museum as an educational instrument. None of the areas provides a new subject for consideration. The emphasis which they have recently been accorded, however, is undoubtedly an indication of the trend of forthcoming developments in art teaching.

The role of art in general education has been of particular interest to art educators. Bettelheim (12) conducted a study using an inventory of 170 items to discover what students think about art. The subjects were 246 college students, all enrolled at the time in some kind of arts course. An analysis of the students' responses indicated that their opinions seem to contradict one another, that there are frequent conflicts between their aesthetic and democratic philosophies, and that they need a better understanding of the role of art in society. McGrath and others (57), in discussing various subjects in art education, recommended that in the interest of emotional maturity and good citizenship, fine arts should have a larger place in general education than they are usually accorded. The recommendation was made that one nonverbal art course be required of all students and that it be taught as an "art and not from an historical or technical viewpoint." Ziegfeld (100) made similar recommendations and urged that the arts offerings involve student participative experiences.

In writing about art in the American college and university, Pepper (73) pointed out that art as a subject has become generally accepted at the college level and that the differences of opinion which exist in this area are largely due to lack of agreement on the character of the art offerings. He favored inclusion in art departments of courses in practice, in theory and criticism, and in history. Gropius (37) insisted that education in the arts should be a part of general education and that the arts should provide a creative discipline. Continuous training of basic manual skills in experimental workshops should be combined with discipline in the fundamentals of surface, volume, space, and composition. The aim of this instruction would be to widen personality rather than to provide performance skill. In contrast, Adams (1) was opposed to general participative art courses in liberal education because he considered that they do more harm than good. He stated that students should be allowed to specialize in art but that for at least one year they should work under competent artists away from the liberal arts curriculum. Pope (74) suggested that the art studio should not be used for experimentation. He recommended that a series of courses analogous to present courses in the theory of music be established and that they be concerned with (a) studying the terms and concepts associated with vision, drawing, and painting and (b) learning how to apply the knowledge so gained to producing a variety of concepts thru the medium of art.

Chermayeff (18) pointed out a number of premises on which a new and valid philosophy of art should rest. A reconstruction of the arts in education was called for by Tilley (91), who declared himself to be in favor of art instruction for all individuals and of art experiences as a part of educational programs at all levels. In another general statement on art in the total educational program, Dix, Ziegfeld, and Hansen (24) wrote from the viewpoints of the general educator, the art educator, and the administrator. Benne (11) considered art education from the point of view of the development of human resources and made positive suggestions for utilizing art to realize such development in the school program.

Art educators were increasingly concerned during this period with the use of art as an instrument for furthering international understanding. Pelikan (72), deFrancesco (22), and Dix (23) all urged this kind of emphasis. The Eastern Arts Association made this topic a subject for one yearbook (28) while in another of its yearbooks (29) it dealt with art education in a free society. McKibbin (58) described a recently established program whereby pictures which interpret American life and which are drawn by American adolescents are exchanged with those made by adolescents in other countries as a means of furthering international understanding. Winslow (96) compiled a list of peacetime objectives for art education.

As evidenced by writings, museums of art are showing increasing concern on the use of museums as educational instruments. The educational philosophy and practice of art museums in the United States were investi-

gated by Low (53), who traced the rise of the belief, which is not generally shared, that the educational function of museums is paramount in the programs of those institutions. He also described a course for the training of school teachers in the use of museums (52). The aims and methods of museum education were discussed by Slatkin (87). Christison (19), in noting the rapid development of the educational function of museums, outlined a needed training course for the preparation of museum workers. Nugent (68) recounted an experimental project sponsored by a museum for the benefit of a selected group of young people talented in art, while Defenbacher (21) discussed the art museum in relation to certain phases of art education.

Improving Art Instruction

As part of the renewed interest in art education with the return to peacetime pursuits, the National Art Education Association was formed and its official journal, *Art Education*, began to be published. A number of publications appeared which were designed to improve art instruction in city and state school systems. The Virginia State Board of Education (92) issued a booklet concerned with art in the first eight grades. In Wisconsin a statewide committee prepared a report (97) concerned with art in the total school program. An account of this report was written by Holland (39). Schultz and Shores (83) collaborated on a statement on art in the elementary school. Gayne (34) conducted a study of art education in Minnesota, for which he collected information from twenty-three towns. He used the case-study method and he investigated the background and status of art education in each town. On the basis of his research he compiled a number of recommendations for the art education department of the University of Minnesota. Landis, Hummel, and Joyner (48) each related the duties and responsibilities of state directors in promoting art programs within their states. Lowry (55) outlined a plan for an experimental community art center. A bibliography of courses of study in art which appeared during the last few years was compiled by Hoover (40).

A number of accounts were prepared on specific art programs. Schmidt (81), analyzing the responses of teachers in different areas, showed the relation between the philosophy of an art workshop and its physical plant and equipment. Dix (25) described the building of the program of art education in a city. Allcott and others (2) recounted the development of a communication arts program involving four arts areas at the junior-high-school level. Art workshops, themselves a part of a larger program in education in Central America, were described by Slockbower (88).

Art and Personality

A considerable number of articles and studies were concerned with the part which art may play in the development of personality and in the discovery and diagnosis of personality traits for both the normal and

the abnormal person. Frank (33) pointed out that the arts offer the major resource today in providing help toward individual development and achievement of inner order and self-discipline. In discussing art as a means of personality integration Johnson (46) stressed the fact that art is a medium of expression for everybody. He suggested that everyone has one or more visual equivalents for every word idea and that if these equivalents are carried to the point of representation in an art form the individual then comes to experience art—not vaguely, but as part of everyday living. In addition to this possibility and thru the same procedures art may also become a clue to self-understanding.

The most extensive study to date on the relation of painting to personality was conducted by Alschuler and Hattwick and reported in a two-volume work (3). Careful case histories were kept of 149 children between the ages of two and five and one-half years over a period of one year, in addition to which twenty-one of the children were observed during the following school year. The behavior of the children was recorded in great detail and relationships were studied between the recorded behavior of the children and the paintings which each did. Factors investigated included the symbolic use of color, the relation between child behavior and color selection, and methods of painting. A brief discussion of some aspects of the study appeared in an article by the same authors (4).

Waehner (93) reported a study of the interpretation of drawings of fifty-five college students. The series which each student made was analyzed and scored on the content of the pictures as well as on preference shown for certain types of formal expression. On the basis of these analyses descriptive personality sketches for each student were drawn up which were then given to a psychologist, a Rorschach expert, and teachers (all of whom knew the students) for matching. The percent of correct matching judgments for both the teachers and the Rorschach expert were in the upper eighties. Waehner concluded from his work that a study of spontaneous drawings which have been made over a period of time can give a picture of an individual's developmental change.

In studying the personality structure of painters and the relationships between personality and painting performance (two aspects of a larger study of the influence of alcohol on creative artists) Roe (79) administered the *Rorschach Test* and the *Thematic Apperception Test* to twenty male painters of recognized artistic stature. No central personality themes were brought out by the analysis of test protocols but a great variety of personality pictures and a wide range of adjustment levels were found. No reliable criteria of "creativity" were revealed. These tests proved to be of great value in understanding the individual artist and the meaning which his work has for him but they did not prove to be adequate gauges of the presence of the sort of creative ability which is needed to become a successful painter in our society.

The revealing nature of pictures as clues to personality is the basis of the *Make-A-Picture Story Projective Personality Test* (MAPS) on which

Schneidman (82) made a preliminary report. The aim of the test is to assist the practitioner to arrive at differential diagnoses among the major nosological categories and more especially to understand the individual psychodynamics of any particular patient.

In discussing a study of personality traits associated with abilities Cattell (17) presented correlations of personality traits with measures of intelligence and measures of drawing ability. It was found that of the thirty-five traits which are used to represent total personality, drawing ability correlates significantly with eight. Heisler (38), in a study in which he compared elementary-school children who attended moving pictures, read comic books, and listened to serial radio programs to an excess with children who indulged in these activities seldom or not at all, found no difference between the groups with reference to chronological age, mental age, educational achievement, socio-economic status of the family, and social and personal adjustment of the student. Woods (98), in investigating the role of language handicap in the development of artistic interest, found a negative correlation between artistic interest and academic accomplishment as measured either by grades completed in school or by scores on the *Army Alpha Test*, positive correlations between artistic interest and mechanical interest, and a negative correlation between artistic interest and verbal and computational interests.

A number of studies have been undertaken on the use of finger painting for the study of personality, both of normal and of abnormal individuals. This medium, because of the fact that no implements come between the individual and its manipulation, seems to lend itself well to this kind of study. Blum and Dragositz (13), using children from the first six grades, studied finger painting as a means of identifying developmental processes. The developmental trends which he found were consistent with the findings of research in the areas of color preference, movement, representation, and concept formation. Arlow and Kadis (6) illustrated with case materials the value of finger painting in treating children with behavior problems and neuroses. They pointed out that the medium permits observation of personality and motor patterns, that the emergence of fantasy is facilitated thru use of the medium, and that it serves both as a record of psychotherapeutic experience and as an objective measure of treatment. Napoli (63), used 900 cases in a study of finger painting and personality diagnosis. On the basis of the finger paintings made by mental patients diagnoses were made which were then confirmed by doctors. Napoli concluded that finger painting used as a projective technic does contribute to the appraisal, study, and further understanding of human personality. In another report Naumberg (66) on the same subject, he included comments made by many of the subjects concerning their paintings. These comments were found to play an important role in the process of diagnosis. In another report Napoli (63, 64) pointed out that utilizing interpretive aspects of finger painting provided sufficient clues to describe a patient's mood and general behavior problem in terms

of the dynamisms at work within him. The validity of his findings, which were both empirically and experientially derived, was based on a high frequency of agreement between observational and clinical diagnoses.

Clark (20) also made use of finger painting as a means of appraising personality in a study in which she used an experimental group of 100 hospitalized mentally-ill patients, ten in each of ten categories of mental illness. She found that there was overlapping on every criterion from one type of mental ailment to another but that certain uses of color and design do distinguish between the different types of illnesses. She concluded that a finger painting is not itself a diagnosis but it may be used as an aid to diagnosis.

Elste (30) conducted a study in which she observed sibling relationships during simultaneous finger-painting activities. Naumberg (66) reported six case studies of the free art expressions of behavior-problem children and adolescents as a means of diagnosis and therapy. All of these cases have been separately published, the publishing date of one (67) falling within the period covered by this review. These cases presented the importance of art expression in psychiatric diagnosis and therapy. Naumberg pointed out that imaginative creative expression is not only a language of communication but also a source of growth and sustenance in the life of every individual whether he happens to be mentally disturbed or inwardly at peace with himself. Bender (10) also reported a case study of psychotherapy thru art in which the subject was a Negro child. Bychowski (16) presented a series of twenty-three paintings done by a woman and analyzed and interpreted them in light of the medium in which the woman was working at the time each picture was done. Pappenheim and Kris (69) discussed the function of drawing and the meaning of the "creative spell" in a schizophrenic artist and pointed out that the change in the function of the artistic activity is understandable only in terms of the delusional system.

Learning and Creativity in Art

Because of its complexity the creative process has not lent itself readily to research technics. Since it is basic in presentday considerations of art education it remains, however, a major concern of art teachers. In addition to this fact the literature abounds in discussions of it. In developing teaching philosophies art educators have leaned heavily on the findings in child development since it is generally accepted that there is a close relationship between the stage of development of an individual and his manner of artistic expression. Lowenfeld (54) indicated that the child's general growth and his creative development are reciprocally bound together and that mental and emotional growth can only be understood and appreciated if the general causal interdependence between growth and artistic creation is understood. He also developed a method for art instruction which is based upon the psychological relationships

which exist between the creation and the creator and which notes the differences in these relationships at the different age levels. He described the various psychological stages of artistic development and pointed out their implications for art teaching.

Schaefer-Simmern (80) stressed the primary importance of the creative process and developed a method of teaching which is designed to encourage the natural cultivation of growing mental powers as they operate simultaneously and interfunctionally within the process of artistic activity. As an individual grows in "visual conceiving" ability the work which he can master also grows organically thru various stages from simple to more complex organizations of form. Underlying the procedure just described is the principle of natural growth. The posthumously published book of Moholy-Nagy (59) is a further development of the approach to the method of art education which was first developed at the Bauhaus. Rannells (75) maintained that the sequence of preparation, incubation, illumination, and verification which is said to characterize creative activity is inadequate and stresses learning thru expression which he terms externalization. He stated that creative activity for adolescents is entirely different than for young children and therefore demands different instructional approaches. His publication on art education in the junior-high school (76) was concerned with objectives and procedures which are appropriate at that level.

In a study of the effects of alcohol on the personality and work habits of twenty outstanding artists Roe (78) showed that all the artists were above average in intelligence and had a much stronger tendency toward abstract thinking than did the general public. In addition, most were sensitive, nonaggressive persons. Born (14) discussed the unconscious processes in artistic creation and presented a rationalization for artistic standards and motivations which seemed to apply the terminology and concepts of psychoanalysis to art.

Two studies were done on tests that involved the recombination of ideas quickly and according to plan, the assumption underlying the test being that the ability to manipulate ideas in this manner is one of the many characteristics essential to artistic ability. Specifically, the tests involved recombining words into sentences, making letters from lines of different shapes, making a story from words presented out of order, and making furniture out of blocks. Welch (95), using professional artists and college students as subjects, found that two of the tests differentiated significantly between these groups while the other two did not. Fisichelli and Welch (32), using groups of college art majors, professional artists, and unselected college students, found that there was no significant difference on the tests between the college art majors and the professional artists, but that a difference did exist between each of these groups and the unselected group. Except in the field of art no consistent differences were found among the groups. Dreffin and Wrenn (26) studied the spatial relations ability and other characteristics of art laboratory students.

Studies in Appreciation and Teaching Method

Sherman (84) experimented extensively with a new method in the teaching of drawing. As a part of the method students spend thirty minutes daily working in a dark room. They are submitted to stimuli which consist of illuminating an object or projecting a slide on a screen for one-tenth of a second, after which they complete their drawings in the dark. The method is intended to train students to see objects in their entirety rather than in parts. Sherman stated that students who learned to paint and draw by this method produced drawings with vitality and integration after only a short period of training, that average students do creative work, and that many of the persistent problems in art teaching tend to solve themselves. In reporting another aspect of this same experiment Sherman (85) also reported that, given competency in positional relationships, determining the choice of color or value models is simply a matter of finding the variety of stimuli best suited to bring out the active participation of as many students as possible.

Bottorf (15) conducted a study comparing two methods of developing art appreciation with college students. One group was given instruction in art history while the other had experiences in art execution. Analysis of the scores made on the test constructed by the experimenter showed that there was a slight but not statistically significant difference in favor of the execution method. Malter (56) analyzed eight preference studies which were reported on illustrative materials for children.

Dubin (27) found that the tempo of development of graphic representation in preschool children can be increased thru training. An experimental group of children between the ages of two and four years were given approximately three months of training in graphic representation. It was found that the experimental group produced spontaneously an appreciably larger number of paintings than the control group and that they also made a significantly greater improvement in painting. Mott (60), using subjects who ranged in age from fifty-one to seventy-two months, investigated the effect of the association of a particular part of the body with muscular activity upon the drawing of a man. He reported that positive and direct influence upon the drawings was effected. Gesell and Ames (35) investigated the development of directionality in drawing, using as subjects children from fourteen months to seven years old, and found that the subjects made definite progress toward drawing figures with a single continuous stroke.

In a study of the effect of chronological age on aesthetic preferences for rectangles of different proportions, Thompson (90) found that college students showed a decided preference for rectangles with width-length ratios ranging from .56 to .65 whereas preschool children displayed no stable preference for any of the rectangles. Increasing similarity to adult aesthetic standards was found with increasing chronological age. Related to this study was one by Shipley, Dattman, and Steele (86), who investi-

gated the influence of size on preferences for rectangular proportion. Barrett and Eaton (9) report a relationship between certain personality traits and preference for color or tint. Different responses produced by good and poor art were investigated by Patrick (70), who found that good art elicited more thought changes and ideas than did poor art, that good pictures produced more self-projection and evoked more memories, and that subjects reacted more favorably to pictures of better quality.

Tests and Measurement

In discussing measurement, Feibleman (31) argued that our inability to measure beauty objectively is due to our lack of the necessary data. He also observed that it is the art object which possesses the aesthetic value and that taste is the recognition of the fact that a considerable amount of beauty has been actualized in a situation. Mursell and others (62), in discussing measurement and understanding in the fine arts, placed emphasis on the endeavors and productions of the learners as they revealed the meaningful aspects of artistic learning. Procedures for evaluation included discussion and comparison of pupils' work and analysis of pupil responses, anecdotal records, and logs of pupil behavior. Peel (71) suggested a new method for analyzing aesthetic preference by having sets of pictures or patterns arranged in order of preference by individuals in a nonart group and having the same pictures placed in order of merit according to artistic criteria by a team of experts. Using these arrangements in order of preference and arrangements in order according to criteria, correlations and matrices of correlation were computed within each group and between the groups, after which the groups were combined and a single matrix was computed.

During the years covered by this review little work was done in the development of new tests or measures in art or in experimentation with those which were already in existence. Two new tests were devised, both of which were variants of technics developed in earlier tests. An aptitude inventory designed by Horn (41) was still in a preliminary form. Horn and Smith (42) reported two small validity studies showing correlation coefficients of .53 and .66 between scores on the test and faculty ratings of success for art school graduates and high-school art students. Graves' test in design judgment (36) is composed of ninety items, all plates of non-objective designs, diagrams, or constructions. The subject is required to select the better of the paired designs on those items in which there are two parts, or the best where there are three. The test purports to measure certain components of aptitude for the appreciation or production of art structure by evaluating the degree to which a subject perceives and responds to the basic principles of aesthetic order. Representational art was not included in order that ideas and prejudices that could influence a subject's decision might be avoided.

In order to reduce criticism of the dated appearance of certain items

included in the *McAdory Art Test*, Anderson (5) omitted a number of them. A definitely favorable response to the changes was noted and the correlation between the total and revised score was found to be high. Ziegfeld (99) reviewed a number of existing art tests. Kaplan (47) made a statement on art aptitude, presented descriptions of several art tests, and gave a critical evaluation of the tests which he described. Rannells (77) criticized all existing tests in art because they measure only a part of the complex of factors that comprise art ability and aptitude. Lewerenz (51), writing from a guidance approach, recommended that testing in art should be an integral part of a broad guidance program so that all students might be included. After pointing out the importance of guidance in art he discussed the qualities that can be measured and listed the interest inventories and the measures of ability and aptitude in art that exist and that he felt could be used in a guidance program. Barrett (9) used a battery of four tests and found that establishing critical scores for each test and combining the results of all four he was able to predict with only a small margin of error a student's likelihood of being a successful art major at Hunter College. Smay (89) outlined a proposed program of evaluation of the professional art education of art teachers in preparation.

Aesthetics and the Psychology of Aesthetics

As was pointed out in the April 1946 REVIEW, increasing interest has developed in the field of aesthetics as a descriptive science. In outlining a descriptive aesthetics from a structuralist point of view Lasaga (49) contrasted descriptive with explanatory aesthetics. Munro (61) indicated a number of methods in the psychology of art that might be pursued with profit by American investigators. Hungerland (45), in discussing procedures for art preferences, developed the thesis that principles are generalized from personal preferences and that it is therefore unthinkable that there can be any criteria which will possess universal validity. He suggested that art objects be arranged in classes, that standards be developed which are relevant to these classes, and that criticism be confined to the objects within a given class at any one time. In a later article Hungerland (43) investigated consistency as a criterion in art criticism and stated that it is possible to develop a method of art criticism which, altho based on a relational theory of value, operates with objectively describable classes and with evaluative criteria derived from the descriptive definition of such classes.

Lee (50) concluded that the cultural lag in aesthetics is due to a misconception of the problem in analyzing beauty. The scientist has never freed himself from the theocentric view of aesthetics and the idea that art is an echo of divinity. In discussing a psychological theory of formal beauty Weiss (94) added a fourth formula to Freud's series, it being that formal aesthetic pleasure is economy of psychic energy in perception. Arnheim (7) took a Gestalt point of view in discussing perceptual abstrac-

tion and art. Hungerland (44), writing on psychological explanations of style in art, stated that there need be little correspondence or congruence between personality and behavior products if it is assumed that several subsystems of the personality can function independently.

Bibliography

1. ADAMS, PHILIP R. "Fine Arts in Liberal Education." *Association of American Colleges Bulletin* 34: 234-41; May 1948.
2. ALLCOTT, RUTH and OTHERS. "Toward a Communication Arts Program." *Art Education Today*, 1948. New York: Teachers College, Columbia University, 1948. p. 27-39.
3. ALSCHULER, ROSE H. and HATTWICK LA BERTA A. *Painting and Personality—A Study of Young Children*. Two volumes. Chicago: University of Chicago Press, 1947. 590 p.
4. ALSCHULER, ROSE H. and HATTWICK LA BERTA A. "Understanding Children through Their Paintings." *Understanding the Child* 16: 98-101; October 1947.
5. ANDERSON, ROSE G. "A Modification of the McAdory Art Test." *Journal of Consulting Psychology* 12: 280-81; July-August 1948.
6. ARLOW, JACOB A. and KADIS, ASJA. "Finger Painting in the Psychotherapy of Children." *American Journal of Orthopsychiatry* 16: 134-46; January 1946.
7. ARNHEIM, RUDOLF. "Perceptual Abstraction and Art." *Psychological Review* 54: 66-82; March 1947.
8. BARRETT, DOROTHY M. "Aptitude and Interest Patterns of Art Majors in a Liberal Arts College." *Journal of Applied Psychology* 29: 483-92; December 1945.
9. BARRETT, DOROTHY M. and EATON, ELIZABETH B. "Preference for Color or Tint and Some Related Personality Data." *Journal of Personality* 15: 222-32; June 1947.
10. BENDER, LAURETTA and MONTAGUE, J. ALLISON. "Psychotherapy through Art in a Negro Child." *College Art Journal* 7: 12-16; Autumn 1947.
11. BENNE, KENNETH. "Art Education as the Development of Human Resources." *Art Education Today*, 1948. New York: Teachers College, Columbia University, 1948. p. 1-8.
12. BETTELHEIM, BRUNO. "What Students Think about Art." *General Education in the Humanities*. (Dunkel, Harold Baker.) Washington: American Council on Education, 1947. p. 177-234.
13. BLUM, LUCILLE H. and DRAGOSITZ, ANNA. "Finger Painting: The Developmental Aspects." *Child Development* 18: 88-105; September 1947.
14. BORN, WOLFGANG. "Unconscious Processes in Artistic Creation." *Journal of Clinical Psychopathology* 7: 253-72; October 1945.
15. BOTTORF, EDNA A. "A Study Comparing Two Methods of Developing Art Appreciation with College Students." *Journal of Educational Psychology* 38: 17-44; January 1947.
16. BYCHOWSKI, GUSTAV. "The Rebirth of a Woman: A Psychoanalytic Study of Artistic Expression and Sublimation." *Psychoanalytic Review* 34: 32-57; January 1947.
17. CATTELL, RAYMOND B. "Personality Traits Associated with Abilities. I. With Intelligence and Drawing Ability." *Educational and Psychological Measurement* 5: 131-46; Spring 1945.
18. CHERMAYEFF, SERGE. "Education for Modern Design." *College Art Journal* 6: 219-22; Spring 1947.
19. CHRISTISON, MURIEL B. "Museum Education: Some Practical Considerations." *College Art Journal* 7: 314-20; Summer 1948.
20. CLARK, VIOLET ERSKINE. *Fingerpainting as a Means of Appraising Personality*. Doctor's dissertation. Columbus: Ohio State University, 1946.
21. DEFENBACHER, LOUISE W. "Adult Education in the Art Museum." *Art Education Today*, 1948. New York: Teachers College, Columbia University, 1948. p. 59-67.
22. DEFRANCESCO, ITALO L. "A New Leitmotif for Art Education." *Education* 66: 350-52; February 1946.
23. DIX, LESTER. "Art in Intercultural Education." *Education* 66: 343-49; February 1946.

24. DIX, LESTER; ZIEGFELD, EDWIN; and HANSEN, ABEL. *Educators Report on Art Education*. Related Arts Bulletin Vol. 5, No. 3. New York (511 Fifth Avenue): Related Arts Service, October 1947. 8 p.
25. DIX, MARION QUIN. "Rebuilding Art Education in a City." *Art Education Today*, 1948. New York: Teachers College, Columbia University, 1948. p. 9-22.
26. DREFFIN, WILLIAM B. and WRENN, C. GILBERT. "Spatial Relations Ability and Other Characteristics of Art Laboratory Students." *Journal of Applied Psychology* 32: 601-605; December 1948.
27. DUBIN, ELIZABETH R. "The Effect of Training on the Tempo of Development of Graphic Representation in Preschool Children." *Journal of Experimental Education* 15: 166-73; December 1946.
28. EASTERN ARTS ASSOCIATION. *Art Education for One World*. 1946 Yearbook. Kutztown, Pennsylvania: The Association, 1946. 192 p.
29. EASTERN ARTS ASSOCIATION. *Art Education in a Free Society*. 1947 Yearbook. Kutztown, Pennsylvania: The Association, 1947. 202 p.
30. ELSTE, ELLEN ANNA. *Sibling Relationships Observed during Simultaneous Finger Painting Activities*. Master's thesis. Worcester, Massachusetts: Clark University, 1947.
31. FEIBLEMAN, JAMES K. "Psychology of Art Appreciation." *Journal of General Psychology* 35: 43-57; July 1946.
32. FISICHELLI, VINCENT R. and WELCH, LIVINGSTON. "The Ability of College Art Majors To Recombine Ideas in Creative Thinking." *Journal of Applied Psychology* 31: 278-82; June 1947.
33. FRANK, LAWRENCE K. "The Developmental Role of the Arts in Education." *Art Education Today*, 1948. New York: Teachers College, Columbia University, 1948. p. 23-26.
34. GAYNE, CLIFTON, JR. "Art Education in Minnesota." *Design* 49: 12-13, 25; September 1947.
35. GESELL, ARNOLD and AMES, LOUISE B. "The Development of Directionality in Drawing." *Journal of Genetic Psychology* 68: 45-61; January 1946.
36. GRAVES, MAITLAND. *Design Judgment Test*. New York: Psychological Corporation, 1946.
37. GROPIUS, WALTER. "Teaching the Arts of Design." *College Art Journal* 7: 160-62; Spring 1948.
38. HEISLER, FLORENCE. "A Comparison between Those Elementary School Children who Attend Moving Pictures, Read Comic Books, and Listen to Serial Radio Programs to an Excess and Those Who Indulge in These Activities Seldom or Not at All." *Journal of Educational Research* 42: 182-90; November 1948.
39. HOLLAND, MAYBLE. "On Our Way in Art Education—Wisconsin Plans a State-wide Program." *Art Education Today*, 1948. New York: Teachers College, Columbia University, 1948. p. 41-44.
40. HOOVER, SOUCI, compiler. "Bibliography of Art Courses of Study." *School Life* 28: 14-19; March 1946.
41. HORN, CHARLES A. *Horn Art Aptitude Inventory*. Preliminary Form, 1944 Revision. Rochester, New York: Office of Educational Research, Rochester Institute of Technology; 1944.
42. HORN, CHARLES A. and SMITH, LEO F. "The Horn Art Aptitude Inventory." *Journal of Applied Psychology* 29: 350-55; October 1945.
43. HUNGERLAND, HELMUT. "Consistency as a Criterion in Art Criticism." *Journal of Aesthetics and Art Criticism* 7: 93-112; December 1948.
44. HUNGERLAND, HELMUT. "Psychological Explanations of Style in Art." *Journal of Aesthetics and Art Criticism* 4: 160-66; March 1946.
45. HUNGERLAND, HELMUT. "Suggestions for Procedure in Art Criticism." *Journal of Aesthetics and Art Criticism* 5: 189-95; March 1947.
46. JOHNSON, ROBERT E. "Fine Arts as a Means of Personality Integration." *School Review* 56: 223-28; April 1948.
47. KAPLAN, OSCAR J., editor. *Encyclopedia of Vocational Guidance*. New York: Philosophical Library, 1948. 1422 p.
48. LANDIS, MILDRED M.; HUMMEL, LYNN E.; and JOYNER, SARA. *Why a State Art Director? Related Arts Bulletin* Vol. 7, No. 1. New York (511 Fifth Avenue): Related Arts Service, January 1949. 4 p.
49. LASAGA, JOSÉ I. "Outline of a Descriptive Aesthetics from a Structuralist Point of View." *Psychological Review* 54: 9-23; January 1947.

50. LEE, HARRY B. "The Cultural Lag in Aesthetics." *Journal of Aesthetics and Art Criticism* 6: 120-38; December 1947.
51. LEWERENZ, ALFRED S. "Measurement in Art from the Vocational Guidance Approach." *Education* 66: 454-60; March 1946.
52. LOW, THEODORE L. "A Course for Training School Teachers in the Use of Museums." *College Art Journal* 8: 124-28; Winter 1948-1949.
53. LOW, THEODORE L. *Educational Philosophy and Practice of Art Museums in the United States*. Contributions to Education No. 942. New York: Teachers College, Columbia University, 1948. 228 p.
54. LOWENFELD, VIKTOR. *Creative and Mental Growth*. New York: The Macmillan Company, 1947. 304 p.
55. LOWRY, EVERETT E. *Projected Plan for the Establishment of an Experimental Community Art Center in Cortland, N. Y.* Doctor's thesis. Teachers College, Columbia University, 1948. 176 p.
56. MALTER, MORTON S. "Children's Preferences for Illustrative Materials." *Journal of Educational Research* 41: 378-85; January 1948.
57. McGRATH, EARL J. and OTHERS. *Toward General Education*. New York: The Macmillan Company, 1948. 224 p.
58. McKIBBIN, MARY A. *Youth Looks at Youth*. Related Arts Bulletin Vol. 6, No. 4. New York (511 Fifth Avenue): Related Arts Service, October 1948. 4 p.
59. MOHOLY-NAGY, LADISLAUS. *Vision in Motion*. Chicago: Theobald and Company (5 N. Wabash Avenue), 1947. 361 p.
60. MOTT, SINA M. "Muscular Activity an Aid in Concept Formation." *Child Development* 16: 97-109; March 1945.
61. MUNRO, THOMAS. "Methods in the Psychology of Art." *Journal of Aesthetics and Art Criticism* 6: 225-35; March 1948.
62. MURSELL, JAMES L. and OTHERS. "The Measurement of Understanding in the Fine Arts." *The Measurement of Understanding*. Forty-Fifth Yearbook, Part I. Chapter X. National Society for the Study of Education. Chicago: University of Chicago Press, 1946. p. 201-12.
63. NAPOLI, PETER J. *Finger-Painting and Personality Diagnosis*. Doctor's thesis. New York: New York University, 1945. 159 p.
64. NAPOLI, PETER J. "Finger Painting and Personality Diagnosis." *Genetic Psychology Monographs* 34: 129-230; November 1946.
65. NAPOLI, PETER J. "Interpretive Aspects of Finger Painting." *Journal of Psychology* 23: 93-132; January 1947.
66. NAUMBERG, MARGARET. *Studies of the "Free" Art Expression of Behavior Problem Children and Adolescents as a Means of Diagnosis and Therapy*. Nervous and Mental Disease Monograph Series, No. 71. New York: Coolidge Foundation, 1947. 225 p.
67. NAUMBERG, MARGARET. "A Study of the Art Work of a Behavior-Problem Boy as it Relates to Ego Development and Sexual Enlightenment." *Psychiatric Quarterly* 20: 74-112; January 1946.
68. NUGENT, FRANCES. "Experiments in Superiority for Young Artists." *California Journal of Secondary Education* 23: 286-89; May 1948.
69. PAPPENHEIM, ELSE and KRIS, ERNEST. "The Function of Drawings and the Meaning of the 'Creative Spell' in a Schizophrenic Artist." *Psychoanalytic Quarterly* 15: 6-13; January 1946.
70. PATRICK, CATHARINE. "Different Responses Produced by Good and Poor Art." *Journal of General Psychology* 34: 79-96; January 1946.
71. PEEL, E. A. "A New Method for Analyzing Aesthetic Preferences: Some Theoretical Considerations." *Psychometrika* 11: 129-37; June 1946.
72. PELIKAN, ALFRED G. "Art as a Factor for International Peace." *Education* 66: 353-56; February 1946.
73. PEPPER, STEPHEN C. "Art in the American College and University." *College Art Journal* 5: 194-200; March 1946.
74. POPE, ARTHUR. "Teaching the Theory and Practice of Drawing and Painting." *College Art Journal* 7: 164-68; Spring 1948.
75. RANNELLS, EDWARD W. "Aesthetic Expression and Learning." *Journal of Aesthetics and Art Criticism* 5: 314-20; June 1947.
76. RANNELLS, EDWARD W. *Art Education in the Junior High School, a Study of Objectives*. Bulletin of the Bureau of School Service. College of Education, University of Kentucky, Vol. 18, No. 4. Lexington: University of Kentucky, 1946. 123 p.

77. RANNELLS, EDWARD W. "Psychological Tests in Art." *Art Education Bulletin* 5, No. 6: 1-2; No. 7: 1-3; September, October 1948.
78. ROE, ANNE. "Alcohol and Creative Work. Part I. Painters." *Quarterly Journal of Studies on Alcohol* 6: 415-67; March 1946.
79. ROE, ANNE. "Painting and Personality." *Rorschach Research Exchange* 10: 86-100; October 1946.
80. SCHAEFER-SIMMERN, HENRY. *The Unfolding of Artistic Activity: Its Basis, Processes, and Implications*. Berkeley: University of California Press, 1948. 201 p.
81. SCHMIDT, FRED J. JR. *The Evaluation of an Arts Workshop*. Ball State Teachers College Bulletin, Series 2, Vol. 20, Publication 54. Muncie, Indiana: Ball State Teachers College, December 1944. 67 p.
82. SCHNEIDMAN, EDWIN S. "The Make-a-Picture-Story (MAPS) Projective Personality Test: a Preliminary Report." *Journal of Consulting Psychology* 11: 315-25; November, December 1947.
83. SCHULTZ, HAROLD A. and SHORES, J. HARLAN. *Art in the Elementary School*. University of Illinois Publication, Vol. 46, No. 16. Champaign; University of Illinois, October 1948. 102 p.
84. SHERMAN, HOYT L. *Drawing by Seeing: a New Development in the Teaching of Visual Arts through the Training of Perception*. New York: Hinds, Hayden, and Eldridge, 1947. 77 p.
85. SHERMAN, HOYT L. and MOONEY, ROSS L. "The Problem of Color in Teaching Drawing." *College Art Journal* 6: 106-14; Winter 1946.
86. SHIPLEY, WALTER C.; DATTMAN, PRISCILLA E.; and STEELE, BARBARA A. "The Influence of Size on Preference for Rectangular Proportion in Children and Adults." *Journal of Experimental Psychology* 37: 333-36; August 1947.
87. SLATKIN, CHARLES E. "Aims and Methods in Museum Education." *College Art Journal* 7: 28-33; Autumn 1947.
88. SLOCKBOWER, EDWARD. "Art Workshops in Central America." *Art Education Today*, 1948. New York: Teachers College, Columbia University, 1948, p. 80-92.
89. SMAY, D. PAUL. *A Proposed Program of Evaluation of the Professional Art Education of Art Teachers in Preparation of the State College for Teachers in Buffalo, N. Y.* Doctor's thesis. New York: Teachers College, Columbia University, 1948.
90. THOMPSON, GEORGE G. "The Effect of Chronological Age on Aesthetic Preferences for Rectangles of Different Proportions." *Journal of Experimental Psychology* 36: 50-58; February 1946.
91. TILLEY, T. EARL. "Reconstruction of the Arts in Education." *Teachers College Record* 49: 466-77; April 1948.
92. VIRGINIA, COMMONWEALTH OF. *Art and the Child*. Bulletin, Vol. 30, No. 7. Richmond: State Board of Education, April 1948. 106 p.
93. WAEHNER, TRUDE S. "Interpretation of Spontaneous Drawings and Paintings." *Genetic Psychology Monographs* 33: 3-70; February 1946.
94. WEISS, JOSEPH. "A Psychological Theory of Formal Beauty." *Psychoanalytic Quarterly* 16: 391-400; July 1947.
95. WELCH, LIVINGSTON. "Recombination of Ideas in Creative Thinking." *Journal of Applied Psychology* 30: 638-43; December 1946.
96. WINSLOW, LEON L. "Peacetime Objectives for Art Education." *Education* 66: 388-91; February 1946.
97. WISCONSIN COOPERATIVE EDUCATIONAL PLANNING PROGRAM. Curriculum Guiding Committee. *Art in the Total School Program*. Bulletin No. 9. Madison: Department of Public Instruction, 1947. 16 p.
98. WOODS, WALKER A. "The Role of Language Handicap in the Development of Artistic Interest." *Journal of Consulting Psychology* 12: 240-45; July-August 1948.
99. ZIEGFELD, EDWIN. "Art." *The Third Mental Measurements Yearbook*. (Buros, Oscar K., editor.) New Brunswick: Rutgers University Press, 1947. p. 257-59.
100. ZIEGFELD, EDWIN. "The College Art Program in General Education." *Journal of General Education* 2: 238-45; April 1948.

Index to Volume XIX, No. 2

Page citations are made to single pages; these are often the beginning of a chapter, section, or running discussion dealing with the topic.

- Aesthetics, 167
Armed forces, reading instruction in, 97
Art, aesthetics, 167; appreciation, 165; and child development, 163; and personality, 160; tests, 166
Art education, 158; and international understanding, 159; methods, 160, 163, 165; trends, 158
Attitudes, racial, 129
Audience response, 154
Audio-visual aids, 145

Bibliotherapy, 129
Blinking frequency, 113

Child development, and art, 163
College reading programs, 96, 110
Composition, English, 135
Curriculum, English composition, 137, 138; in literature, 125

Disability, in reading, 95, 98, 107

Emotional adjustment, 129
English composition, 135; in college, 137, 140, 144; curriculum, 138; grammar, 135, 139; mechanics, 139; punctuation, 140; research summaries, 135; and success in college, 147; teaching methods, 142; teaching practices, 136; tests, 145; visual aids, 145
Extracurricular activities, 153
Eye movements, 97, 109, 110

Frequency, of word usage, 118

Grammar, 135, 139

Handwriting, 118, 122; current practices, 122

Illumination, and reading, 114
Intelligence, and reading ability, 98

Intercultural education, 129
Interests, reading, 102, 126, 130

Lateral dominance, and reading, 112
Literature, 125; in college, 125; curriculum, 125; effectiveness of teaching, 128; interests, 126; teaching methods, 126

Perception, visual, 109
Personality, and art, 160
Projective technics, 160
Punctuation, 140

Racial attitudes, 129
Readability, 113
Reading, 95; in armed forces, 97; in college, 96, 110; of deaf children, 98; disabilities, 95, 98, 107; eye movements, 97, 109, 110; in high school, 96, 110; and intelligence, 98; interests, 102, 126, 130; and lateral dominance, 112; readiness for, 98; remedial instruction in, 96; reversals, 113; special technics in, 96; status of achievement in, 97; tachistoscopic methods, 97, 109; tests, 101; textbooks, 99; variability, 97; visual factors, 107
Reading disability, 95, 98, 107
Remedial reading instruction, 96
Reversals in reading, 113

Social adjustment, 129
Social status, and vocabulary, 101
Speech, of children, 155; methods of presentation, 154; tests, 153
Speech education, 152; effects of training, 152; extracurricular, 153
Spelling, 118; methods of teaching, 119, 120; relation to language ability, 121; status of achievement in, 119; tests, 120; word lists, 118; word selection, 118

Tachistoscope, and reading instruction, 97, 109

- | | |
|---|--|
| Teacher training, English, 147; speech, 153 | Visual factors in reading, 107 |
| Tests, art, 166; English, 145; reading, 101; speech, 153; spelling, 120 | Visual perception, 109 |
| Typography, and readability, 114 | Vocabulary, in children's writing, 118, 148; growth of, 100; of reading textbooks, 99, 100; and social status, 101 |
| Visual acuity, 108 | Word lists, 118 |
| Visual aids, 145 | Word selection, in spelling, 118 |

FOREWORD

THE STUDIES reported in this issue of the REVIEW suggest an increasingly close relationship between the disciplines of education and psychology and those of public health and medicine. The relationship between mental and physical health is presented in the REVIEW for the first time. Investigations pertaining to the establishment of a scientific basis for the psychosomatic concept, diagnostic procedures, and etiological factors associated with mind-body relationships are reviewed.

In the discussion of the experimental contributions to mental health, emphasis is placed on the importance of using both the clinical and experimental approaches as supplementary methods. During the past three years a number of studies dealing with the effects of anxiety, threat, and perception of the self, as dynamic concepts have appeared. Animal experimentation has continued.

Projective technics and the nondirective interview received considerable attention as mental hygiene instruments. A new concept of reliability and validity of these instruments, which deviates from the traditional statistical concept, has emerged. In this newer concept variations in response are considered significant in revealing possible important diagnostic information.

The effect of various aspects of war and those associated with building a peaceful society on the mental health of people is a new emphasis in studies dealing with community life. The greater need for understanding between people is evidenced in investigations dealing with sectional differences in values. Mental hygiene in schools and colleges continues to emphasize the trend expressed in earlier issues of this cycle. The interaction of mental health and the major instruments of the educational process, particularly the curriculum, method, and the teacher, has crystallized. Emphasis is now placed on the mental hygiene aspects of administration. Research related to the utilization of nondirective procedures and the use of the psychodrama as applied to classroom teaching are presented.

In industry the observation is made that research has lagged far behind the awareness and practical achievements with regard to the establishment of health programs for employees. Studies dealing with human relations in industry have appeared. The quality of the administration of health services for school children is dependent upon the division of community responsibility, legislation, and available facilities. Meeting the major health problems of children is discussed and findings from studies in pediatrics are presented. International concern with health and education is creating a greater awareness of the social and economic factors associated with the attainment of health goals. Motivation in health education continues to be an area for needed study. An increase in the number of studies relating to the improvement of teaching methods and their evaluation in terms of better health practices, however, is noted.

The areas of mental health and health education are very broad. Each

is concerned with the total educational process. Each places its emphasis on prevention and facilitation. Methods of study for clearer definition of problems and their intensive investigation continues to be a need. Methods employed have represented the tools of the several disciplines concerned with these broad areas. In considering further research in these areas, perhaps we can anticipate a greater development in the future, as investigators within these respective fields pool their special skills and abilities.

MABEL E. RUGEN, *Chairman*
Committee on Mental and Physical Health

CHAPTER I

Relationships Between Physical and Mental Health

REYNOLD A. JENSEN

THE BELIEF that man's illnesses are directly and primarily attributable to some physical cause such as bacteria, virus, trauma, or changes due to deterioration was widely accepted until recently. The idea that mental or emotional factors might play a significant role was, in a large measure, disparaged. Gradually, however, the realization has developed that psychological and emotional disturbances may have a very definite place in the etiology of many illnesses. Physiologic functions and tissue reactions, it is postulated, may be produced by psychic factors. A brief review of some of the earlier investigators that have contributed to the establishment of the scientific study of these relationships is essential to an intelligent understanding of more recent trends and developments.

The idea of a mind-body relationship is by no means new. It was recognized by the ancients and emphasized in their writings. Many passages in literature refer to strong emotional tension affecting the physical state. Common expressions in our everyday speech indicate an intuitive acceptance of this idea—"white with rage," "it burned me up," and the like.

Delay in the scientific study of the mind-body relationship can be accounted for largely by the fact that mythology and demonology have been associated with this concept and have, as a result, produced an emotionally biased point of view and inhibited clear, critical thinking. Dissipation of this unhealthy attitude began with the era of scientific medicine. The founding of the modern schools of anatomy, bacteriology, physiology, and pathology gradually produced a clearer understanding of man as a physical organism and of some of the factors influencing his functioning. In addition, methods and procedures for scientific study have been developed. The dramatic results of these years are apparent on every hand. Yet the explanation for many illnesses remains obscure. Physical factors alone cannot account for them. Two circumstances, the large group of unexplained illnesses and the slow but persistent development toward greater understanding of mental and emotional factors as they influence man, have served to stimulate study into the possible relationship between them.

This new field of interest is known as psychosomatic medicine. In essence the term connotes first, a point of view or basic philosophy in which there is no sharp cleavage between physical and psychical factors in illness; second, the giving of equal consideration in the study of illness to physical and psychical factors important in each case; and third, the belief that not only physical methods but also psychological methods of study are essential in each case.

Scientific Bases for Acceptance of the Psychosomatic Concept

The science of understanding emotional and psychological factors as they influence mankind is said to begin with Mesmer, "who unwittingly compelled us to observe and to study the phenomena of suggestion and suggestibility" (21).

The early work of Charcot, Freud, Jung, Adler, and others in Europe, and Meter and others in this country, all contributed to the slow but steady growth toward greater understanding of psychodynamics and its influence upon man. In addition to these important advances other studies have stimulated interest in the study of the mind-body relationship. Pavlov (47) and Cannon (9), pioneering in the scientific study of the conditioned reflex and the influence of emotional stress on physiological function, opened new areas for investigation in which their students and many others have contributed richly.

Study of the population trends with the concomitant change in the character of illness from the acute conditions to those of chronic character has also played a significant role (41, 44, 48). Halliday's report (26) clearly showed that many patients diagnosed as having physical illness were suffering essentially from emotional tensions. In a later report (25) he noted a sex and age shift in psychosomatic illness in Great Britain.

In 1935 Dunbar (13) published the first edition of *Emotions and Bodily Changes*, which summarized the scientific literature from the years 1910 to 1933 dealing with the mind-body relationships. Over 2000 references are included in this significant work which has done much to stimulate interest in the field of psychosomatic medicine. Since this book was published, others (1, 28, 31, 58) have appeared dealing specifically with psychosomatic problems. Additional support in this general area has resulted from the experiences of World War II, some of which are summarized in *Men Under Stress* (24).

Rowntree (53) significantly defined the incidence of psychosomatic disorders encountered in 13,000,000 examinations of selective service registrants in World War II and indicated an important trend in medicine. His report demonstrated a marked increase in the incidence of asthma, peptic ulcer, gastrointestinal syndromes, and neuro-circulatory asthenia. A most striking finding was the marked increase in the psychosomatic disorders in the Negro.

Consolidation of interest in and support of the field of psychosomatic medicine was realized when the American Society for Research in Psychosomatic Problems was organized in May 1943. This society is unique among scientific organizations in that it welcomes into its membership representatives of all disciplines interested in research in physical and mental problems. Thru this organization much has been done to advance scientific study of mind-body relationship.

As a result of these developments the study of the relation between physical and mental health has been gradually placed on a scientific

basis. Fantasy, mythology, intuition, description, and empirical observations have been supplanted by scientific study and observation in which principles and procedures of modern psychology are included with others.

Diagnostic Procedures

As an indication of present emphasis and trends, considerable research designed to define better technics for making more accurate diagnosis of illness is in progress. Halliday (27) has developed a formula in explanation of his concept of psychosomatic illness based on the following six generalizations: (a) Emotional tension precipitated by some upsetting event in the patient's life is important in a large proportion of cases. (b) The personality of the patient tends to be associated with certain kinds of disease. (c) A definite disproportion of sex ratio exists in many of these disorders. (d) Other psychosomatic disorders often occur simultaneously or may alternately occur in the patient. (e) A similar or associated disorder occurring in parents, relatives, or siblings is noted in a significantly high proportion of cases. (f) In the case of a psychosomatic disorder the course of the illness tends to be phasic with periods of improvement followed by periods of recurrence.

Dunbar's *Psychosomatic Diagnosis* (14), based upon twelve years of research and clinical study, clearly delineated many common errors in history-taking which, if corrected, would assure greater understanding of the factors contributing to the patient's difficulties. In addition, many pertinent suggestions were offered for making a more complete inquiry into the genesis of the complaints offered by patients. Diagnostic methods and procedures were also considered.

Richardson (50) reported upon the influence which the family plays in illness and what can result when members of various professions engage in cooperative effort toward understanding of social, emotional, cultural, and economic factors important in illness.

Bennett (3) stressed the importance of proper diagnosis in his analysis of complaints offered by 150 patients who finally come to the attention of the psychiatrist after being treated for a variety of organic diseases. In his study he found the members of this group had had 496 medical treatments, 244 surgical procedures, and 71 miscellaneous treatments. Mittelman and others (43) reported a similar study of 450 hospital patients.

Clark (10) summarized some of the significant biochemical research which has concerned itself with problems basic to a better understanding of human behavior. He likewise urged more cooperative studies in which psychiatrists, psychologists, and chemists participate. Gellhorn (22) compiled the physiological research done on the autonomic nervous system and its influence upon health. Of increasing interest is the role of the endocrine system in influencing human behavior. Brady (8), Pincus and others (49), Hoskins and Pincus (30), and Fauber and Daniels (17) have recently reported some of their studies in this area.

The effects of starvation upon human personality and behavior have been studied scientifically and reported by Keys and his associates (18, 33, 55).

Other technics helpful in establishing more correct diagnoses are being studied and reported. Among these is the use of the electroencephalograph. In a study of 500 epileptic patients Gibbs and Gibbs (23) demonstrated that the clinical value of this instrument was enhanced by conducting sleep studies.

Psychological tests have been widely applied in diagnostic work. The *Minnesota Multiphasic Personality Inventory*, developed by Hathaway and McKinley (29), has been found by Walch and Schneider (57) to be useful in the private practice of medicine. By rapid inspection of the profiles thus obtained of 147 hospitalized cases Mehl (40) was able to identify two-thirds of the actual abnormal cases. Psychological appraisal of brain-injured individuals has been studied by Meyer and Semmel (42) and by Allen (2). The *Rorschach Test* has been used widely for the differential study of many illnesses, a few of which are asthma (54), cardiac conditions (32), arthritis (7), post-chorea (34), and migraine (52).

Etiological Factors

Efforts continue in the field of clinical medicine to secure more critical definition of factors of etiological significance and to institute better methods of treatment. Only a few of these many studies can be mentioned. *Studies in Psychosomatic Medicine* (1) summarized the work of the staff of the Chicago Institute for Psycho-analysis for the past sixteen years. Dunbar's *Synopsis of Psychosomatic Diagnosis and Treatment* (15), published in 1948, presented a comprehensive survey. It included a bibliography of 432 references.

Among the more recent studies, Riecker (51) reported the fourth known case of peptic ulcer occurring in twins. He suggested that such findings further confirm the basically hereditary nature of peptic ulcer. Much has been written about the paramount importance of psychological factors in this and other gastro-intestinal conditions. Apparently the issue is not yet settled. Lennox (37) emphasized that "genetic epilepsy is fundamentally a problem of neuro-physiology and not of psychology."

After interviewing more than 1000 patients regarding dysmenorrhea, and nausea and vomiting of pregnancy, Bertling (4) concluded that a psychogenic factor may be common between these conditions.

The etiology of multiple sclerosis, a chronic degenerative condition of the central nervous system, is as yet little understood. Langworthy (36) reported poor emotional adjustment and inadequate personalities in a group of five cases and suggested a possible relationship between personality problems and the onset and course of the disease.

Increasing attention has been given to the study of the mental and physical health of children (39). Using the Wetzel chart to plot the course

of physical growth, a series of cases in which the pattern of physical growth seems to be altered when the child has been subjected to unusual tension have been reported and the implications discussed (5, 6, 19). These studies strongly suggest that emotional factors can and do influence physical growth in greater degree than has been recognized previously. Two issues of *Nervous Child* (45, 46) were devoted to consideration of physical and mental health of children, one titled "Psychosomatic Problems of Childhood," the other, "Psychopathology Caused by Physical Diseases." Fabian and Bender (16) and Fuller (20) have studied accidents of children and possible factors contributing to them. Their impressions seem to corroborate the findings of Dunbar (14).

An important development related to population trends during this period was the increasing interest in the specialty of geriatrics. The journal, *Geriatrics*, appeared in 1946 as the official organ of the American Geriatrics Society. It is "devoted to research and clinical study of the diseases and processes of the aged and aging." The *Journal of Gerontology* published for the Gerontology Society, appeared in 1946.

Professional Education

An important trend which has developed recently is the emphasis being given to medical education in psychosomatic medicine on all levels (11, 12, 35, 38, 56). In January 1945 a three-year course for graduate students interested in psychosomatic training and research, the first of its kind, was established in the Columbia University Department of Psychiatry.

An intensive experimental course for general practitioners was sponsored in 1946 by the Commonwealth Fund at the University of Minnesota. The following year under the same auspices a group of forty-four pediatricians, psychiatrists, and psychiatric social workers spent three days discussing the emotional needs of the child and basic principles in training physicians in psychiatrically oriented pediatrics. The proceedings of these sessions have been edited by Witmer (59, 60). Since that time many such short courses for practicing physicians have been held thruout the country.

Summary

A survey of the trends of the past decade makes it apparent that increasing attention has been given to all factors which may cause the illnesses of man. Attitudes have gradually changed with regard to disease and the factors inherent in the process. The physician has joined forces with the chemist, the neurophysiologist, the psychologist, the social worker, and others in an effort to delineate more clearly the factors important in the etiology of illness and to develop more effective therapeutic measures. The sharp demarcation between physical and mental health has gradually changed in the direction of considering each to be closely related to the other. A good beginning has been made. As further advances are made,

the lessons learned should eventually result in an increasingly successful program of preventive medicine.

Bibliography

1. ALEXANDER, FRANZ, and OTHERS. *Studies in Psychosomatic Medicine*. New York: Ronald Press Co., 1948. 568 p.
2. ALLEN, ROBERT M. "The Test Performance of the Brain Injured." *Journal of Clinical Psychology* 3: 225-30; July 1947.
3. BENNETT, ABRAHAM E. "Faulty Management of Psychiatric Syndromes Simulating Organic Disease." *Journal of the American Medical Association* 130: 1203-1208; April 1946.
4. BERTLING, MARION H. "Some Psychic Aspects of Dysmenorrhea and Nausea and Vomiting of Pregnancy." *American Journal of Obstetrics and Gynecology* 56: 733-37; October 1948.
5. BINNING, GRIFFITH. "Peace Be on Thy House." *Health* 6: 6-7, 28, 50; March-April 1948. (Toronto: Health League of Canada.)
6. BINNING, GRIFFITH. "School Records: How To Keep Track of Growing Children." *Health* 10: 10-11, 22, 33-34; July-August 1949. (Toronto: Health League of Canada.)
7. BOOTH, GOTTHARD. "Organ Function and Form Perception; Use of the Rorschach Method with Cases of Chronic Arthritis, Parkinsonism and Arterial Hypertension." *Psychosomatic Medicine* 8: 364-95; November-December 1946.
8. BRADY, EUGENE. "Psychologic Tension and Serum Iodine Levels in Patients Without Evidence of Thyroid Disease." *Psychosomatic Medicine* 11: 70-73; March-April 1949.
9. CANNON, WALTER B. *Bodily Changes in Pain, Fear, Hunger and Rage*. Second enlarged and revised edition. New York: D. Appleton-Century Co., 1929. 404 p.
10. CLARK, LELAND C. "The Chemistry of Human Behavior." *American Journal of Orthopsychiatry* 18: 140-52; January 1948.
11. DEUTSCH, FELIX, and OTHERS. "Present Methods of Teaching." *Psychosomatic Medicine* 11: 213-22; April 1949.
12. DIETHLEM, OSCAR, and OTHERS. "Mental Hygiene in a General Hospital." *Psychosomatic Medicine* 11: 119-26; March-April 1949.
13. DUNBAR, HELEN FLANDERS. *Emotions and Bodily Changes*. New York: Columbia University Press, 1935. 595 p.
14. DUNBAR, HELEN FLANDERS. *Psychosomatic Diagnosis*. New York: Paul B. Hoeber, 1943. 741 p.
15. DUNBAR, HELEN FLANDERS, and OTHERS. *Synopsis of Psychosomatic Diagnosis and Treatment*. St. Louis: C. V. Mosby Co., 1948. 501 p.
16. FABIAN, ABRAHAM A., and BENDER, LAURETTA. "Head Injury in Children: Predisposing Factors." *American Journal of Orthopsychiatry* 17: 68-70; January 1947.
17. FAUBER, EDWARD S., and DANIELS, GEORGE E. "Androgenic Hormones and Psychic Conflict." *Psychosomatic Medicine* 11: 142-45; May-June 1949.
18. FRANKLIN, JOSEPH C., and OTHERS. "Observations on Human Behavior in Experimental Semi-Starvation." *Journal of Clinic Psychology* 4: 28-45; January 1948.
19. FRIED, RALPH, and MAYER, MORRIS F. "Socio-Emotional Factors Accounting for Growth Failure in Children Living in an Institution." *Journal of Pediatrics* 33: 444-56; October 1948.
20. FULLER, ELIZABETH BECHEM. "Injury Prone Children." *American Journal of Orthopsychiatry* 18: 708-23; October 1948.
21. GALSTONE, IAGO, and OTHERS. *Modern Attitudes in Psychiatry*. New York: Columbia University Press, 1946. 154 p.
22. GELLHORN, ERNST. *Autonomic Regulations: Their Significance for Physiology, Psychology and Neuropsychiatry*. New York: Interscience Publishers, 1943. 373 p.
23. GIBBS, ERNA L., and GIBBS, FREDERICK A. "Diagnostic and Localizing Value of Electroencephalographic Studies in Sleep." *Epilepsy*. Association for Research in Nervous and Mental Disease, Research Publications, Volume XXVI. Baltimore: Williams and Wilkins Co., 1948. p. 366-76.
24. GRINKER, ROY R., and SPIEGEL, JOHN P. *Men Under Stress*. Philadelphia: Blakiston Co., 1945. 484 p.

25. HALLIDAY, JAMES L. "The Incidence of Psychosomatic Affections in Britain." *Psychosomatic Medicine* 7: 135-46; May 1945.
26. HALLIDAY, JAMES L. "Psychoneurosis as a Cause of Incapacity Among Insured Patients." Preliminary report. *British Medical Journal* (Supplement) 85: 1534-88; March 9, 1935.
27. HALLIDAY, JAMES L. "The Significance of 'The Concept of a Psychosomatic Affection'." *Psychosomatic Medicine* 7: 240-45; July 1945.
28. HARRIS, NOEL G., editor. *Modern Trends in Psychological Medicine*. New York: Paul B. Hoeber, 1949. 450 p.
29. HATHAWAY, STARKE, and MCKINLEY, J. CHARNLEY. *Manual for the Minnesota Multiphasic Personality Inventory*. Minneapolis: University of Minnesota Press, 1943. 16 p.
30. HOSKINS, ROY R., and PINCUS, GREGORY. "Sex Hormone Relationships in Schizophrenic Men." *Psychosomatic Medicine* 11: 102-109; March-April 1949.
31. HUNT, JOSEPH M., editor. *Personality and the Behavior Disorders*. New York: Ronald Press Co., 1944. Vol. I, 618 p. Vol. II, 624 p.
32. KEMPLE, CAMILLA. "Rorschach Method and Psychosomatic Diagnosis: Personality Traits of Patients with Rheumatic Disease, Hypertension, Cardio-vascular Disease, Coronary Occlusion and Fracture." *Psychosomatic Medicine* 7: 85-89; March-April 1945.
33. KEYS, ANCEL. "Human Starvation and Its Consequences." *Journal of the American Dietetic Association* 22: 582-87; July 1946.
34. KRAUS, STEPHEN. "Post-Choreic Personality and Neurosis." *Journal of Mental Science* 92: 75-95; January 1946.
35. KUBIE, LAWRENCE S. "The Organization of a Psychiatric Service for a General Hospital." *Psychosomatic Medicine* 4: 252-72; July 1942.
36. LANGWORTHY, ORTHELLO R. "Relation of Personality Problems to Onset and Progress of Multiple Sclerosis." *Archives of Neurology and Psychiatry* 59: 13-23; January 1948.
37. LENNOX, WILLIAM G. "Psychiatry, Psychology, and Seizures." *American Journal of Orthopsychiatry* 19: 432-46; July 1949.
38. LEVINE, MAURICE. "An Orientation Chart in Teaching Psychosomatic Medicine." *Psychosomatic Medicine* 10: 111-13; March-April 1948.
39. MEDICAL CLINICS OF NORTH AMERICA. "Symposium on Pediatrics." *Medical Clinics of North America* 31: 497-772; May 1947.
40. MEHL, PAUL E. "Profile Analysis of the Minnesota Multiphasic Personality Inventory in Differential Diagnosis." *Journal of Applied Psychology* 30: 517-24; October 1946.
41. METROPOLITAN LIFE INSURANCE COMPANY. "Longevity of the American People Increasing." *Statistical Bulletin* 20: 1-3; August 1949.
42. MEYER, EDITH, and SEMMEL, MARIANNE. "The Psychological Appraisal of Children with Neurological Defects." *Journal of Abnormal and Social Psychology* 42: 193; April 1947.
43. MITTELMAN, BELA, and OTHERS. "Personality and Psychosomatic Disturbances in Patients on Medical and Surgical Wards—A Survey of 450 Admissions." *Psychosomatic Medicine* 7: 220-23; July 1945.
44. NATIONAL INSTITUTE OF HEALTH. *The Magnitude of the Chronic Disease Problem in the United States*. Preliminary Reports of National Health Survey: 1935-36, Sickness and Medical Care Series, Bulletin No. 6. Washington, D. C.: U. S. Public Health Service, 1938. 19 p.
45. NERVOUS CHILD. "Psychopathology Caused by Physical Diseases (Somatopsychopathology)." *Nervous Child* 7: 3-116; January 1948.
46. NERVOUS CHILD. "Psychosomatic Problems of Childhood." *Nervous Child* 5: 296-371; October 1946.
47. PAYLOV, IVAN P. *Lectures on Conditioned Reflexes and Psychiatry*. Translated and edited by W. Horsley Gantt. New York: International Publishers Co., 1941. 199 p.
48. PERROTT, GEORGE ST. J. "The Problem of Chronic Disease." *Psychosomatic Medicine* 7: 21-27; January 1945.
49. PINCUS, GREGORY, and OTHERS. "A Study of Pituitary-Adrenocortical Function in Normal and Psychotic Men." *Psychosomatic Medicine* 11: 74-101; March-April 1949.
50. RICHARDSON, HENRY B. *Patients Have Families*. New York: Commonwealth Fund, 1945. 408 p.

51. RIECKER, HERMAN H. "Peptic Ulcer in Identical Twins." *Annals of Internal Medicine* 24: 878-82; May 1946.
52. ROSS, W. DONALD, and MCNAUGHTON, FRANCIS L. "Objective Personality Studies in Migraine by Means of the Rorschach Method." *Psychosomatic Medicine* 7: 73-79; March 1945.
53. ROWNTREE, LEONARD G. "Psychosomatic Disorders as Revealed by Thirteen Million Examinations of Selective Service Registrants." *Psychosomatic Medicine* 7: 27-30; January 1945.
54. SCHAPIA, VIVA. "The Incidence of Neurosis in Cases of Bronchial Asthma as Determined by the Rorschach Test with Psychiatric Examination." *Psychosomatic Medicine* 3: 157-59; April 1941.
55. SCHIELE, BURTRUM, and BROZEK, JOSEPH. "'Experimental Neurosis' Resulting from Semi-Starvation in Man." *Psychosomatic Medicine* 10: 31-50; January-February 1948.
56. SOSLOW, GEORGE. "An Experiment with Comprehensive Medicine." *Psychosomatic Medicine* 10: 165-75; May-June 1948.
57. WALCH, ALPHONSE E., and SCHNEIDER, ROBERT A. "The Minnesota Multiphasic Personality Inventory; an Evaluation of Its Use in Private Practice." *Minnesota Medicine* 30: 753-58; July 1947.
58. WEISS, EDWARD, and ENGLISH, OLIVER S. *Psychosomatic Medicine*. Second edition. Philadelphia: W. B. Saunders Co., 1949. 803 p.
59. WITMER, HELEN LELAND, editor. *Pediatrics and the Emotional Needs of the Child*. New York: Commonwealth Fund, 1948. 180 p.
60. WITMER, HELEN LELAND, editor. *Teaching Psychotherapeutic Medicine: An Experimental Course for General Physicians Given by Walter Bauer and Others*. New York: Commonwealth Fund, 1947. 464 p.

CHAPTER II

Experimental Contributions to Mental Hygiene

LAURANCE F. SHAFFER

THE BASIC principles of mental hygiene must be derived from both clinical and experimental sources, for neither of these two approaches is entirely dependable alone. Clinical study is the obviously appropriate method for investigating the adjustments of "whole persons," but it is often loosely controlled and may lead to vague or wild hypotheses. Experimental research is more precise, but is at its best when dealing with restricted segments of behavior. Dependence can be placed only on findings substantiated by both methods.

Until recently, the contributions of experimental psychology most pertinent to mental hygiene were studies of artificially induced gross behavior disorders in lower animals. All of the studies reported in the REVIEW of December 1946 were of that type.

The last three years have seen a notable increase in the number and variety of research problems dealing with dynamic concepts, such as need, conflict, threat, anxiety, and the perception of one's self. The present review is limited to a survey of research relevant to general principles of mental hygiene. Studies of individual differences in personality and of practical technics of diagnosis and treatment are reported elsewhere.

Anxiety and Its Effects

A salient characteristic of human maladjustment is anxiety, a fearful anticipatory response to situations that normally are not regarded as dangerous. Children and adults who present problems of mental hygiene usually respond with anxiety to social situations, including relationships with their parents and peers, that represent sources of satisfaction to most people.

Several experiments with animals have clarified the origin and effects of anxiety. May (14) taught rats to run from one compartment of an apparatus to another in order to escape electric shock. The fear aroused by the shock was then conditioned to the sound of a buzzer by paired presentation of the two stimuli. Thereafter the rats ran to escape the "harmless" buzzer as readily as they had run to escape the shock. In a similar experiment Miller (15) taught rats to fear being in one section of a two-compartment box by means of electric shock. Subsequently, without the shock's being used again, the rats learned by trial and error to turn a wheel to gain escape from the compartment. When the conditions were changed so that wheel-turning no longer opened the door, the rats extinguished that response and learned a new one, that of pressing a bar which permitted their escape. The experiments showed that an acquired

fear, analogous to anxiety in people, acted as a strong drive. The animals acquired new habits, rewarded only by the reduction of their fear of harmless stimuli.

Welsh and Kubis (34) showed that people could be conditioned similarly. They conditioned the Palmar sweating response, an autonomic reaction that is a part of the emotional pattern, to the visual stimulus of a particular nonsense syllable. A group of neurotic patients was conditioned more readily than a normal group, and their responses persisted longer.

Mowrer and Viek (18) confirmed by an experiment with rats the clinical observation that a sense of helplessness increases fear or anxiety. One group of rats could terminate an electric shock stimulus by jumping. A second group of rats was given exactly the same amount of shock, which continued for the determined length of time regardless of what they did. Fear was measured by refusal of food, the "helpless" rats refusing food more than five times oftener than the rats that could control the termination of the painful stimulus.

In human adjustments, emotional tensions evoked by frustrations and conflicts are reduced by substitute adjustment mechanisms. Some of these, including regression, repression, and projection, have been studied experimentally in the past. Displacement, the transfer of an adjustive response from one object or person to another, was added to the list of experimentally studied mechanisms by Miller (16). In everyday life displacement is illustrated by the behavior of a business man, severely frustrated at his office, who takes out his spite on his family. In three ingenious experiments Miller demonstrated the existence of displacement in rats and showed that it is substantially identical with the generalization of a learned response, a familiar phenomenon in learned experiments.

The "Neurotic Paradox"

Maladjusted or neurotic people persistently show unrewarding, self-defeating modes of behavior. For example, a maladjusted youngster who really wants the approval of his peers may be withdrawn or seclusive, or else so aggressive, sarcastic, and obnoxious that they refuse to associate with him. Thus he defeats his own real desires. Maladjusted behavior, therefore, seems to go contrary to the accepted principle of learning that unrewarded responses are extinguished and that only rewarded behavior is perpetuated. This phenomenon of behavior that is at the same time self-perpetuating and self-defeating has been called the "neurotic paradox" (17).

Two experiments with animals have helped to explain that paradox. Farber (8) trained a group of rats to run to one arm of a simple T-maze to secure food. When the food reward was shifted to the other arm of the maze these rats soon changed their choice. A second experimental group was trained similarly, except that they received an electric shock

immediately beyond the choice point just before reaching the food. When the reward was shifted and the shock discontinued, the shocked rats did not adapt to the change but continued for an average of sixty-one trials to run to the unrewarded side! Their behavior, in that respect, was like that of a "neurotic" person. The conclusion was drawn that the shocked rats had acquired a conditioned fear or anxiety, evoked by being at the choice point. Making the habitual response rewarded them by reducing their anxiety, even when it was no longer rewarded by food. To confirm that hypothesis, another group of rats was trained with the shock procedure and then fed for two ten-minute periods at the point at which they had been shocked. These rats showed no abnormal persistence in an unrewarded course of action. Their behavior confirmed the hypothesis, since the feeding had made the shock-point no longer a stimulus for their fear.

A similar and even more striking result was secured in an experiment by J. S. Brown, reported by Mowrer (17: 591). Rats trained to run down an alley to a safety compartment to escape shock eventually ceased to run when the shock was discontinued. But if a section of the alley just in front of the safety compartment was always electrified, the rats continued to run for hundreds of trials even tho they were always introduced into the alley at the farther end where the grid was not charged. A "sensible" rat had only to sit still to escape the shock, but the rats invariably "punished themselves" by running over the shock area to reach a learned point of safety, because their running behavior was reinforced every time. Maladjusted human beings act the same way. For example, the anxiety-reduction that an overaggressive youngster gets from being sarcastic and critical toward his fellows makes him feel better, hence he continues in this self-defeating course of behavior without ever discovering that a cooperative attitude will be more rewarding eventually.

The Effect of Threats and Anxieties on People

A substantial number of genuinely experimental studies of human subjects, studies highly pertinent to mental hygiene, were published in the triennium covered by the present review. Alper (1) studied the effect of a threat to self-esteem on intellectual performance and memory. Ten college students took difficult tests under two conditions: (a) a relaxed condition, with emphasis on helping to standardize the material, and (b) an "ego-involved" condition, in which the tasks were presented as an intelligence test and on which the subject failed miserably in the presence of a more successful contemporary. Under the threatening condition the subjects did significantly less well on the tests and also remembered them less well at a later time. Beier (3) induced anxiety in a group of women graduate students by giving them a mildly unfavorable Rorschach interpretation. On a series of tests requiring attention, reasoning, and flexibility, given immediately afterward, the experimental subjects did less well than

a matched unthreatened group. The test performance of the anxiety-threatened group was best described as rigid and poorly organized.

These experiments define an aim and a means for practical mental hygiene. People achieve best when they are not threatened by evaluation, and when their attention is on the material studied, rather than on a need to defend their own adequacy as learners.

Perception as a Dynamic Function

Perception was one of the first functions that psychologists studied by precise experiments, but earlier research regarded it as a dry, intellectual process. Recent theorists (19, 32) have taken a more dynamic view of perception, emphasizing that a person's way of seeing his world is profoundly influenced by his needs, experiences, and conflicts, and that his perceptions in turn determine his adjustive behavior.

McClelland, Atkinson, and others in a coordinated series of investigations (2, 11, 12, 13) studied the effects of two needs, hunger and need for achievement, on perception. Perception was tested by having the subjects guess the nature of a "faint," really nonexistent, image projected on a screen, and by having them make up stories based on somewhat ambiguous (thematic apperception) pictures. Hungrier subjects, deprived of food for sixteen hours, "saw" more food-related objects on the blank screen and used more food-deprivation themes in the stories based on the pictures. In other comparable studies, students who had just experienced failure on tests showed by their perceptions and stories greater need for achievement than did control subjects.

In a very direct attack on the effect of personal values on perception, Bruner and Goodman (4) showed that coins looked larger than cardboard disks of the same size. Their apparent finding that coins were perceived as larger by poor boys than by rich boys was not confirmed by the careful repetition of the experiment by Carter and Schooler (5), however, and must be regarded with reservation. Postman, Bruner, and McGinnies (22) tested subjects with the *Allport-Vernon Study of Values*, which yielded a profile of their interests in theoretical, economic, esthetic, social, political, and religious affairs, and then measured the speed with which they could perceive words harmonious with these interests. For example, the word "science" was one of several used as relevant to theoretical interest, "useful" to economic value, and "prayer" to religious. In general, the subjects perceived more quickly and correctly the words that corresponded to their dominant personal values. Errors of perception, too, were symptomatic. A subject with little religious interest misperceived *sacred* as "sucked," "sacked," and "shocked" before he perceived it correctly, while a religiously inclined student misperceived *reverence* as "divinity" and "sentiment," words that are congruent in meaning.

Postman and Bruner's study of perception under stress (21) is especially significant for mental hygiene. Subjects were tested for their ability to

see short sentences, very rapidly exposed. Then one group was threatened with a sense of failure by making them try to describe a complex picture presented much too rapidly. A control group was shown the picture for an adequately long time and was allowed to succeed in an easy perceptual task. On being retested with the sentence perceptions, the threatened subjects now did more poorly than the controls. Also, they misperceived some innocent words as aggressive words: for *rust*, some of them saw "bust," "burst," or "hurt." The findings were similar to those of other studies cited (1, 3), showing that threat and anxiety reduced a person's ability to learn, remember, and even to perceive accurately.

The Perception of One's Self

The most important perception that any person makes is his perception of himself. One's self-concept or ego was entirely speculative or a philosophical issue until quite recently, when beginnings were made toward an experimental approach.

In a study of delinquent children, Rogers, Kell, and McNeil (28) rated each child on a number of factors, including physical status, family record, social influences, education, and self-insight. The latter factor meant the degree to which the child understood his own situation and problems. An independent follow-up study rated the children's later readjustments, which were then correlated with the factors in their histories. The youngster's self-insight was found to be the best predictor of his later adjustment. His social experiences and family's record were also related to the outcome, but educational, economic, and physical factors were not.

Dymond (6, 7) developed ingenious methods of measuring "insight" as an understanding of one's self, and "empathy," the ability to understand the feelings of other people. A preliminary study suggested that insight and empathy are positively related.

Psychotherapy has not usually been considered as an experimental process, but has potentialities for research. A person receiving psychotherapy is in a state of change, and it remains only to measure his status in terms of his behavior before, during, and after the process. The development of verbatim recording and of techniques for the systematic analysis of counseling interviews has tended to bring studies of therapy within the canons of science. Rogers (27) and Snyder (31) have pointed out the values of therapy as a research method for the general study of personality.

Raimy (23), in a study already nearly a classic, analyzed 111 recorded interviews of fourteen counseling clients for statements showing the person's attitude toward himself. In successful counseling cases there was a marked shift from an unfavorable to a favorable self-concept, which was absent in unsuccessful cases. Raimy concluded that a person's self-concept was a core factor in his personality organization. Peres (20) obtained similar results from an analysis of group therapy sessions.

Rogers (26), Raskin (24, 25), and others collaborated to report in the

June 1949 issue of the *Journal of Consulting Psychology* a coordinated study of ten recorded counseling cases. The clients' positive attitudes increased and their negative attitudes decreased as counseling progressed (29). There was a substantial correlation between attitudes of acceptance and respect for one's self and favorable attitudes toward others (30, 33). Defensive behavior shown by the client to the counselor decreased (9) and the maturity of his reported behavior outside of the interviews increased (10) during the course of the therapy. The finding of greatest importance for the general study of personality was the significant and positive relationships among the various factors: self-regarding attitudes, acceptance of and respect for self, understanding and insight, maturity of behavior, and lack of defensiveness. These qualities give an integrated and meaningful picture of a person's level of adjustment.

The experimental study of self-regarding attitudes is still in a pioneer stage, but it is likely to affect mental hygiene concepts and practices profoundly by centering attention on the individual as a person rather than on environmental influences or on his specific responses to situations.

Bibliography

1. ALPER, THELMA G. "Memory for Completed and Incompleted Tasks as a Function of Personality: An Analysis of Group Data." *Journal of Abnormal and Social Psychology* 41: 403-20; October 1946.
2. ATKINSON, JOHN W., and McCLELLAND, DAVID C. "The Projective Expression of Needs: Part II, The Effect of Different Intensities of the Hunger Drive on Thematic Apperception." *Journal of Experimental Psychology* 38: 643-58; December 1948.
3. BEIER, ERNST G. "The Effect of Induced Anxiety on Some Aspects of Intellectual Functioning: A Study of the Relationship Between Anxiety and Rigidity." *American Psychologist* 4: 273-74; July 1949.
4. BRUNER, JEROME S., and GOODMAN, CECILE C. "Value and Need as Organizing Factors in Perception." *Journal of Abnormal and Social Psychology* 42: 33-44; January 1947.
5. CARTER, LAUNOR F., and SCHOOLER, KERMIT. "Value, Need, and Other Factors in Perception." *Psychological Review* 56: 200-207; July 1949.
6. DYMOND, ROSALIND F. "A Preliminary Investigation of the Relation of Insight and Empathy." *Journal of Consulting Psychology* 12: 228-33; July-August 1948.
7. DYMOND, ROSALIND F. "A Scale for the Measurement of Empathic Ability." *Journal of Consulting Psychology* 13: 127-33; April 1949.
8. FARBER, ISADORE E. "Response Fixation Under Anxiety and Nonanxiety Conditions." *Journal of Experimental Psychology* 38: 111-31; April 1948.
9. HAIGH, GERARD. "Defensive Behavior in Client-Centered Therapy." *Journal of Consulting Psychology* 13: 181-89; June 1949.
10. HOFFMAN, A. EDWARD. "A Study of Reported Behavior Changes in Counseling." *Journal of Consulting Psychology* 13: 190-95; June 1949.
11. McCLELLAND, DAVID C., and ATKINSON, JOHN W. "The Projective Expression of Needs: Part I, The Effect of Different Intensities of the Hunger Drive on Perception." *Journal of Psychology* 25: 205-22; April 1948.
12. McCLELLAND, DAVID C.; ATKINSON, JOHN W.; and CLARK, RUSSELL A. "The Projective Expression of Needs: Part III, The Effect of Ego-Involvement, Success, and Failure on Perception." *Journal of Psychology* 27: 311-30; April 1949.
13. McCLELLAND, DAVID C., and OTHERS. "The Projective Expression of Needs: Part IV, The Effect of the Need for Achievement on Thematic Apperception." *Journal of Experimental Psychology* 39: 242-55; April 1949.
14. MAY, MARK A. "Experimentally Acquired Drives." *Journal of Experimental Psychology* 38: 66-77; February 1948.

15. MILLER, NEAL E. "Studies of Fear as an Acquirable Drive: I. Fear as Motivation and Fear-Reduction as Reinforcement in the Learning of New Responses." *Journal of Experimental Psychology* 38: 89-101; February 1948.
16. MILLER, NEAL E. "Theory and Experiment Relating Psychoanalytic Displacement to Stimulus-Response Generalization." *Journal of Abnormal and Social Psychology* 43: 155-78; April 1948.
17. MOWRER, ORVAL H. "Learning Theory and the Neurotic Paradox." *American Journal of Orthopsychiatry* 18: 571-610; October 1948.
18. MOWRER, ORVAL H., and VIEK, PETER. "An Experimental Analogue of Fear from a Sense of Helplessness." *Journal of Abnormal and Social Psychology* 43: 193-200; April 1948.
19. MURPHY, GARDNER. *Personality: A Biosocial Approach to Origins and Structure*. New York: Harper and Brothers, 1947. 999 p.
20. PERES, HADASSAH. "An Investigation of Nondirective Group Therapy." *Journal of Consulting Psychology* 11: 159-72; July-August 1947.
21. POSTMAN, LEO, and BRUNER, JEROME S. "Perception Under Stress." *Psychological Review* 55: 314-23; November 1948.
22. POSTMAN, LEO; BRUNER, JEROME S.; and MCGINNIES, ELLIOTT. "Personal Values as Selective Factors in Perception." *Journal of Abnormal and Social Psychology* 43: 142-54; April 1948.
23. RAIMY, VICTOR C. "Self Reference in Counseling Interviews." *Journal of Consulting Psychology* 12: 153-63; May-June 1948.
24. RASKIN, NATHANIEL J. "An Analysis of Six Parallel Studies of the Therapeutic Process." *Journal of Consulting Psychology* 13: 206-20; June 1949.
25. RASKIN, NATHANIEL J. "The Development of the 'Parallel Studies' Project." *Journal of Consulting Psychology* 13: 154-56; June 1949.
26. ROGERS, CARL R. "A Coordinated Research in Psychotherapy: A Nonobjective Introduction." *Journal of Consulting Psychology* 13: 149-53; June 1949.
27. ROGERS, CARL R. "Some Observations on the Organization of Personality." *American Psychologist* 2: 358-68; September 1947.
28. ROGERS, CARL R.; KELL, BILL L.; and MCNEIL, HELEN. "The Role of Self-Understanding in the Prediction of Behavior." *Journal of Consulting Psychology* 12: 174-86; May-June 1948.
29. SEEMAN, JULIUS. "A Study of the Process of Nondirective Therapy." *Journal of Consulting Psychology* 13: 157-68; June 1949.
30. SHEERER, ELIZABETH T. "An Analysis of the Relationship Between Acceptance of and Respect for Self and Acceptance of and Respect for Others in Ten Counseling Cases." *Journal of Consulting Psychology* 13: 169-75; June 1949.
31. SNYDER, WILLIAM U. "Some Contributions of Psychotherapy to Personality Theory." *Journal of Abnormal and Social Psychology* 44: 22-28; January 1949.
32. SNYGG, DONALD, and COMBS, ARTHUR W. *Individual Behavior: a New Frame of Reference for Psychology*. New York: Harper and Brothers, 1949. 386 p.
33. STOCK, DOROTHY. "An Investigation Into the Interrelations Between the Self Concept and Feelings Directed Toward Other Persons and Groups." *Journal of Consulting Psychology* 13: 176-80; June 1949.
34. WELSH, LIVINGSTON, and KUBIS, JOSEPH. "The Effect of Anxiety on the Conditioning Rate and Stability of the PGR." *Journal of Psychology* 23: 83-91; January 1947.

CHAPTER III

Technics and Instruments For the Improvement of Mental Health

RUTH STRANG

IN ORDER to assist many individuals in attaining the goals of mental health, wholesome and satisfying human relations and realistic, acceptable attitudes toward oneself, other persons, and the world, certain instruments of diagnosis and therapy are necessary.

Many references to technics and instruments useful in mental hygiene diagnosis and therapy are included in other issues of the REVIEW: Chapters IV, V, and VI of the issue on "Counseling, Guidance, and Personnel Work," Vol. 18, April 1948; Chapters II and V of "Methods of Research and Appraisal in Education," Vol. 18, December 1948; and Chapter VII of "Mental and Physical Health," Vol. 16, December 1946.

Observation in Life Situations

Basic to effective observation is an understanding of the complex conditions out of which emotional disturbances arise and of the early signs of mental illness. From the study of over 5000 thirteen-year-old children referred to the children's ward of Bellevue Hospital, Bender (8) learned much about the early conditions and patterns of development that lead to serious emotional disturbance. Alpert (3) likewise emphasized the child-development-in-his-environment approach to the recognition of neuroses in childhood. The relation of child care practices, such as emotional deprivation in infancy, to the development of personality was thoroly and thoughtfully reviewed by Orlansky (41). Of all the factors studied in the lives of antisocial children the most frequently recurring were disturbances in home background and inability to wait for gratification of desires (20).

In a study of vulnerability to delinquency in groups of fifty delinquent and fifty nondelinquent boys (58), the battery of tests, despite the low reliabilities of many of the individual scores, seemed to identify the delinquent boy as having a less adequate personality than the nondelinquent. Delinquency viewed as a positive adaptation to unsolved mental hygiene problems has been studied extensively enough to supply background for interpretation of observed behavior (40).

Observation was focused on the dynamics of behavior patterns rather than on the incidence of nervous habits (57) or other relatively meaningless isolated details of behavior, and on the genetic, developmental, and normal adjustment aspects of adolescence (21).

Clinical Study of Psychological Tests

Progress has been made in the use of intelligence tests to study an individual's affective life as well as his mental functioning. Both qualitative and quantitative approaches have been employed. The subject often makes "personal" answers to questions on the Binet or the Wechsler-Bellevue tests that arise out of his emotional conflicts and give clues to some aspects of his adjustment and environmental influences. These personal responses, made after emotional symptoms have developed, often help to identify neurotic disturbances that may be preventing an individual from using his mental capacity. The principle of psychometric patterning has been applied with some success to the Wechsler scale to indicate the presence of anxiety (43).

Changes of ten points or more in IQ from one testing to another may be an indication of emotional maladjustment. In their study of twenty-two nursery school children who exhibited a marked change of ten to thirty-one IQ points, Despert and Pierce (15) found in each case that increase in IQ paralleled improvement in emotional and social adjustment.

The best statistical methods of bringing out psychiatric diagnostic information from mental ability test scores have not been determined. Some investigators prefer the multiple regression analysis to the "difference score analysis" used by Rapaport. Profile analysis and scattermeasures have also been criticized. Du Mas (17) advised the use of statistical methods as supplementary to the intuitive method of interpreting personality profiles.

Questionnaire Technics

Much work based largely on the use of questionnaires and rating scales for screening the emotionally maladjusted was done during the war (59). An adaptation of a neurotic inventory used in the armed forces was administered to 4213 high-school pupils (26). A reported modification of the usual personal-inventory procedure was the self-interview inventory (29) in which the subject sorts into three categories, true, false, and cannot say, 360 items of personal history and experience, each typed on a separate card. Another development reported was the so-called intuition questionnaire (48), designed to locate individual tension areas thru the subject's response to thirty briefly described situations, for example, "X feels upset if she hears that people are criticizing or blaming her."

Gerberich (22) found the replies of college students to a questionnaire 90 percent consistent after a one-day interval, 76 percent after seven days, and 74 percent after ten days. Contrary to current opinion, he reported less consistency with factual than with attitudinal and social adjustment questions. Consistency, however, should not be confused with accuracy of replies.

Since mental health grades imperceptibly into mental illness, in which

normal mechanisms are exaggerated, it is important to know the response patterns of normal persons on various diagnostic instruments. McKinney (35) attempted to establish norms for case history questionnaire data by comparing 208 unselected students with 210 students known to have emotional problems.

Batteries of Tests and Questionnaires

In general, the flexible use of batteries of tests and questionnaires is more effective for mental hygiene diagnosis than are single tests (5). A battery of eleven personality tests and one questionnaire with a validity coefficient of .80 discriminated significantly between normal and neurotic patients (27).

Nondirective Interviews

Recognition of feelings, such as "lack of confidence" and "self-defense," as expressed in the interview, contributes to the understanding of an individual's mental health. Thru analysis of phonographically recorded interviews investigators (6, 44) explored the content of interviews and case histories. The interview technic has been thoroly reviewed in other publications (51, 53).

Projective Technics

The importance of the projective technics in the diagnosis of mental health is indicated by the large number of books and articles on this subject. Frank (19) in a small, readable book presented the basic theory and use of projective technics. In his comprehensive review of the literature, Bell (7) gave details of method and extensive bibliography for each of the major projective technics. In *Psychodiagnosis* (45) Rosenzweig concretely presented projective technics among other diagnostic procedures used by clinical psychologists.

Most work has been done in this area with the two most widely used projective technics, the *Rorschach* and the *Thematic Apperception Test*. Altho the value of the Rorschach method as a clinical instrument has been demonstrated, its validity is dependent upon the person using it and the control of subjective bias (46).

Of particular significance in the study of mental health was Monroe's effort to use the *Rorschach* with groups of college freshmen to detect actual and potential deviations from mental health (37). She used the matching method to validate this procedure. On the basis of the Rorschach responses, examiners wrote descriptive sketches of each girl's intellectual and emotional development. These sketches, with identifying data deleted, were later submitted to instructors who had had opportunity to observe and know the students. They were instructed to identify the students from

the sketches and to underline statements about each student that they considered true or false. Monroe reported that there were few errors in identification in thousands of cases, and that these errors were due to careless or inaccurate descriptions or to badly phrased statements.

Considerable progress has been made toward arriving at a better basis for interpreting the *Thematic Apperception Test*. Coleman (11) attempted to measure the effect on forty-one children of seeing a motion picture before they made responses to ten of the thematic apperception pictures. He concluded that "within the operational limits of this investigation, the clinical usefulness of the *Thematic Apperception Test* appears not to be affected by daily experiences of a similar intensity." Tomkins (55) made an extensive study of the theory and technic of interpreting this technic, and Symonds (54) applied it in his study of adolescent fantasy.

Another picture test that has aroused much interest recently is the Szondi test, which is composed of six series of eight photographs of mental patients, from each of which the subject chooses the two pictures he likes most and the two he dislikes most. Its purpose, like that of the *Rorschach*, is to "reflect the personality as a functioning dynamic whole" (13).

Effort is being made to improve other reaction-to-picture technics which seem most promising. A quantitative analysis of the Picture-Frustration Study (18) showed moderate to high correlation, both positive and negative, between this technic and other measures of personality, scholastic aptitude and achievement, interests, and socio-economic status during childhood. Further work was also done on the study of anxiety reactions by means of pictures (16).

Another variation of the picture projective technic, validated in Holland on more than 20,000 subjects over a period of seven years (56), consists of four water-color pictures. Each picture, purposely vague, represents a different social situation: being with one other person, being personally alone, being socially alone, and being with many other persons. The worker lets the subject look at each of the four pictures for one minute and then asks him to write a story about them. Under these conditions children produce stories that appear to be very personal and to reveal their conflicts, characteristics, and general attitudes toward life.

A new concept of the reliability and validity of projective technics, different from the statistical concepts that have been developed for standardized tests, is being recognized. According to this newer concept, variations in response may be important diagnostic information, revealing the subject's persistent dynamic personality patterns. Another emphasis is on comparison, not of separate traits, but of "configural organization" of the same individual as shown by different instruments. Muench (39) employed the *Rorschach*, the *Kent-Rosanoff Free Association Test*, and the *Bell Adjustment Inventory* to "evaluate personality changes exhibited by clients as the result of nondirective psychotherapy." Much of the validation by so-called expert judgment has met with justifiably severe criticism; in reality, such judgment has often been rendered by untrained persons

who lacked sufficient basis for making the particular judgment required. Validation of these instruments and technics should be solidly based on clinical diagnosis and "subsequent life adjustment and performance of the subjects" (19).

Since ability to relate oneself to others is a major manifestation of mental health, the technics of sociometry (30) and socio-drama are important instruments in this field. Many articles, too numerous to include here, describing these technics and their application in various groups have been published in the magazines *Sociometry* and *Sociatry*.

An important new development is the application of projective methods to certain informal experiences. For example, Pepinsky (42) observed his client's reactions to the picture of a bleak landscape on the wall of his office. Each client responded to the picture uniquely and used it as a stimulus to explore and analyze his personal problems.

Finger painting and spontaneous drawing and painting have likewise recently received much emphasis as diagnostic and therapeutic technics. The two volumes by Alschuler and Hattwick (4) are the most extensive of the studies of children's painting; they give much detail on the interpretation of paintings against the background of case study data.

Sears (47) pointed out the importance of a sensitive observer who recognizes the variation in the child's responses which may be caused by differences in recording and measuring, by materials, by interaction between child and worker, by the length of the play session, by the degree of spontaneity of the child's play, and by his recent emotional experiences.

Altho the validity of the *Sentence Completion Test* for the diagnosis of personality has not yet been established, the technic gives promise of usefulness on different diagnostic levels (52).

The most practical and helpful kind of article is the verbatim record of an expert's use of a technic, followed by analysis and discussion (6, 38). Another valuable type of research refines a technic that has already proved promising (2).

Therapeutic Instruments and Methods

Therapy to promote mental health may be applied on three levels: in the home or classroom, in special groups formed in the school, or in groups under psychiatric supervision. Each of these kinds of therapeutic experiences has been optimistically described; each has value. Therapy dramatics (23), free play and discussion (1), sociodrama in the home (34), and play writing and acting (33) are examples of the use of play technics and group therapy in home and classroom situations.

Group therapy on a more technical level is one means by which emotionally disturbed children may be given experiences that cannot be provided in regular classrooms. There are three basic types of group therapy: play therapy for young children, activity group therapy for older children, and discussion group therapy for adolescents and adults. The entire April

1948 issue of the *American Journal of Psychiatry* was devoted to group therapy and bibliotherapy. One example of group therapy for children in Grades III to VI was described by Koenig (31). Children with behavior problems were referred by the teachers and came to the "playroom" once a week for six months. The therapist was extremely permissive at first, allowing the children freedom to choose any of the activities: clay modeling, woodworking, puppetry, rhythms, and the like. All but one of the children showed "improvement" in personality patterns at the end of the experiment. The investigator recognized the need for a follow-up of the children's adjustment some months after the end of the play sessions. Landisberg and Snyder (32), in their analysis of four nondirective groups, clarified the process of nondirective play therapy. Group therapy for mothers was also described and evaluated (24). Valuable suggestions for improving play therapy were given by Conn (12), Despert (14), Harms (25), Malone (36), and Slavson (49).

A recent review of psychotherapeutic counseling (51) contains references to articles far too numerous to discuss here. One promising method of this type of counseling is the statistical and qualitative comparison of the techniques used in "successful" and "unsuccessful" interviews (50). Brief methods of treatment for everyday maladjustment are being developed.

Bordin (9) pointed out that therapies vary in the degree of responsibility assumed by the client, in the degree of the worker's sensitivity to the attitudes expressed by the client, and in the type of response he makes to the client's attitudes.

At the most technical and specialized end of the scale of treatment are the techniques of the psychologist, psychiatrist, psychoanalyst, and medical specialist. According to Burt (10) child guidance is a psychological and educational problem. Most problem children are not mentally ill; their need is for environmental changes, character training, or remedial teaching. These are the province of the psychologist, trained in "normal psychology" who studies the whole mind by every possible approach, rather than by exclusive use of the subjective, intuitive techniques. Both psychologists and psychiatrists are emphasizing the mental hygiene aspects of their work and are attempting to appraise their results. A most provocative volume is entitled *Failures in Psychiatric Treatment* (28).

Since the various kinds of shock therapy belong in the realm of pathology, they need not be considered here except to point out the increasing cautioning against the indiscriminate use of shock therapies.

Further Research Needed

Since the successful use of any technic or instrument depends upon the person who uses it—his personality, background of theoretical knowledge, experience, and training—more research is needed to determine the most effective methods of preparing workers in this field. Equally fundamental is the need for more accurate knowledge about the conditions that give

rise to conduct disorders and neuroses in childhood, and about effective ways in which conditions can be changed so that individuals can develop, thru their own efforts, the best mental health possible for them. With reference to the technics themselves, the major effort might well be spent on experimental study of those that are most promising and have a sound basic rationale.

Bibliography

1. ADLERBLUM, EVELYN D. "Mental Hygiene Begins in School." *Mental Hygiene* 31: 541-55; October 1947.
2. ALBINO, RONALD C. "The Stable and Labile Personality Types of Luria in Clinically Normal Individuals." *British Journal of Psychology, General Section* 39: 54-60; September 1948.
3. ALPERT, AUGUSTA. "Criteria for Recognition of Neuroses in Children." *American Journal of Diseases of Children* 72: 274-78; September 1946.
4. ALSCHULER, ROSE H., and HATTWICK, LA BERTA W. *Painting and Personality*. Chicago: University of Chicago Press, 1947. Vol. I, 263 p. Vol. II, 327 p.
5. ALTUS, WILLIAM D., and BELL, HUGH M. "An Analysis of Four Orally Administered Measures of Adjustment." *Educational and Psychological Measurement* 7: 101-15; Spring 1947.
6. ASSUM, ARTHUR L., and LEVY, SIDNEY J. "Analysis of a Nondirective Case with Followup Interview." *Journal of Abnormal and Social Psychology* 43: 78-89; January 1948.
7. BELL, JOHN E. *Projective Techniques*. New York: Longmans, Green and Co., 1948. 533 p.
8. BENDER, LAURETTA. "Psychopathic Behavior Disorders in Children." *Handbook of Correctional Psychology*. (Edited by Robert M. Lindner and Robert V. Seliger.) New York: Philosophical Library, 1947. p. 360-77.
9. BORDIN, EDWARD S. "Dimensions of the Counseling Process." *Journal of Clinical Psychology* 4: 240-44; July 1948.
10. BURT, CYRIL. "Symposium on Personality: Part V, Reply to Criticisms and Conclusion." *British Journal of Educational Psychology* 17: 6-19; February 1947.
11. COLEMAN, WILLIAM. "The Thematic Apperception Test. Part I, Effect of Recent Experience. Part II, Some Quantitative Observations." *Journal of Clinical Psychology* 3: 257-64; July 1947.
12. CONN, JACOB H. "The Play-Interview as an Investigative and Therapeutic Procedure." *Nervous Child* 7: 257-86; July 1948.
13. DERI, SUSAN. *Introduction to the Szondi Test*. New York: Grune and Stratton, 1949. 354 p.
14. DESPERT, J. LOUISE. "Play Therapy; Remarks on Some of Its Aspects." *Nervous Child* 7: 287-95; July 1948.
15. DESPERT, J. LOUISE, and PIERCE, HELEN O. "The Relation of Emotional Adjustment to Intellectual Function." *Genetic Psychology Monographs* 34: 3-56; August 1946.
16. DORKEY, MARGARET, and AMEN, ELISABETH W. "A Continuation Study of Anxiety Reactions in Young Children by Means of a Projective Technique." *Genetic Psychology Monographs* 35: 139-83; May 1947.
17. DU MAS, FRANK K. "On the Interpretation of Personality Profiles." *Journal of Clinical Psychology* 3: 57-65; January 1947.
18. FALLS, ROBERT P., and BLAKE, ROBERT R. "A Quantitative Analysis of the Picture-Frustration Study." *Journal of Personality* 16: 320-25; March 1948.
19. FRANK, LAWRENCE K. *Projective Methods*. Springfield, Illinois: Charles C. Thomas, 1948. 96 p.
20. FRIEDLANDER, KATE. "Early Signs of Antisocial Behavior in Children." *Medical Press* 220: 56-58; July 21, 1948.
21. GARDNER, GEORGE E. "The Mental Health of Normal Adolescents." *Mental Hygiene* 31: 529-40; October 1947.
22. GERBERICH, JOHN B. "A Study of the Consistency of Informant Responses to Questions in a Questionnaire." *Journal of Educational Psychology* 38: 299-306; May 1947.

23. GILLIES, EMILY P. "Therapy Dramatics for the Public School-Room." *Nervous Child* 7: 328-36; July 1948.
24. GLATZER, HENRIETTE T. "Selection of Mothers for Group Therapy." *American Journal of Orthopsychiatry* 17: 477-83; July 1947.
25. HARMS, ERNST. "Play Diagnosis: Preliminary Considerations for a Sound Approach." *Nervous Child* 7: 233-46; July 1948.
26. HERTZMAN, JACK. "High School Mental Hygiene Survey." *American Journal of Orthopsychiatry* 18: 238-56; April 1948.
27. HIMMELWEIT, H. T.; DESAI, M.; and PETRIE, A. "An Experimental Investigation of Neuroticism." *Journal of Personality* 15: 173-96; December 1946.
28. HOCH, PAUL H., editor. *Failures in Psychiatric Treatment*. New York: Grune and Stratton, 1949. 241 p.
29. HOVEY, H. BIRNET. "A Self-Interview Inventory." *Journal of Clinical Psychology* 3: 191-93; April 1947.
30. JENNINGS, HELEN H. *Sociometry in Group Relations*. A Work Guide for Teachers. Washington, D. C.: American Council on Education, 1948. 85 p.
31. KOENIG, FRANCES G. "A Group Therapy Experiment in a City Elementary School." *Understanding the Child* 18: 40-44; April 1949.
32. LANDISBERG, SELMA, and SNYDER, WILLIAM U. "Nondirective Play Therapy." *Journal of Clinical Psychology* 2: 203-14; July 1946.
33. LASSNER, RUDOLF. "Playwriting and Acting as Diagnostic-Therapeutic Techniques with Delinquents." *Journal of Clinical Psychology* 3: 349-56; October 1947.
34. LIPPITT, ROSEMARY. "Psychodrama in the Home." *Sociatry* 1: 148-67; June 1947.
35. MCKINNEY, FRED. "Case History Norms for Unselected Students and Students with Emotional Problems." *Journal of Consulting Psychology* 11: 258-69; September-October 1947.
36. MALONE, THOMAS P. "Analysis of the Dynamics of Group Psychotherapy Based on Observations in a Twelve-Month Experimental Program." *Journal of Personality* 16: 245-77; March 1948.
37. MONROE, RUTH L. "The Use of Projective Methods in Group Testing." *Journal of Consulting Psychology* 12: 8-15; January-February 1948.
38. MORENO, J. L. "Psychodrama of an Adolescent." *Sociatry* 2: 7-26; April-August 1948.
39. MUENCH, GEORGE A. *An Evaluation of Nondirective Psychotherapy by Means of the Rorschach and Other Indices*. Applied Psychology Monographs, No. 13. Stanford University, Calif.: Stanford University Press, 1947. 163 p.
40. NATIONAL SOCIETY FOR THE STUDY OF EDUCATION. *Juvenile Delinquency and the Schools*. Forty-Seventh Yearbook, Part I. Chicago: University of Chicago Press, 1948. 280 p.
41. ORLANSKY, HAROLD. "Infant Care and Personality." *Psychological Bulletin* 46: 1-48; January 1949.
42. PEPINSKY, HAROLD B. "Application of Informal Projective Methods in the Counseling Interview." *Educational and Psychological Measurement* 7: 135-40; Spring 1947.
43. RASHKIS, HAROLD A., and WELSH, GEORGE S. "Detection of Anxiety by Use of the Wechsler Scale." *Journal of Clinical Psychology* 2: 354-57; October 1946.
44. REID, DOROTHY K., and SNYDER, WILLIAM U. "Experiment on 'Recognition of Feeling' in Nondirective Psychotherapy." *Journal of Clinical Psychology* 3: 128-35; April 1947.
45. ROSENZWEIG, SAUL. *Psychodiagnosis*. New York: Grune and Stratton, 1949. 380 p.
46. ROTTER, JULIAN B. "The Present Status of the Rorschach in Clinical and Experimental Procedures." *Journal of Personality* 16: 304-11; March 1948.
47. SEARS, ROBERT R. "Influence of Methodological Factors in Doll Play Performance." *Child Development* 18: 190-97; December 1947.
48. SHERRIFFS, ALEX C. "The 'Intuition Questionnaire': A New Projective Technique." *Journal of Abnormal and Social Psychology* 43: 326-37; July 1948.
49. SLAVSON, SAMUEL R. "Play Group Therapy for Young Children." *Nervous Child* 7: 318-27; July 1948.
50. SNYDER, WILLIAM U. "A Comparison of One Unsuccessful with Four Successful Nondirectively Counseled Cases." *Journal of Consulting Psychology* 11: 38-42; January-February 1947.
51. SNYDER, WILLIAM U. "The Present Status of Psychotherapeutic Counseling." *Psychological Bulletin* 44: 297-366; July 1947.

52. STEIN, MORRIS I. "The Use of a Sentence Completion Test for the Diagnosis of Personality." *Journal of Clinical Psychology* 3: 47-56; January 1947.
53. STRANG, RUTH. *Counseling Technics in College and Secondary School*. Revised and enlarged edition. New York: Harper and Brothers, 1949. 302 p.
54. SYMONDS, PERCIVAL M. *Adolescent Fantasy*. New York: Columbia University Press, 1949. 397 p.
55. TOMKINS, SILVAN S. *The Thematic Apperception Test; The Theory and Technique of Interpretation*. New York: Grune and Stratton, 1947. 297 p.
56. VAN LENNEP, D. J. *Four Picture Test (1930)*. The Hague: Martinus Nijhoff, 1948. Test blanks and 48-page manual.
57. YOUNG, FLORENCE M. "The Incidence of Nervous Habits Observed in College Students." *Journal of Personality* 15: 309-20; June 1947.
58. ZAKOLSKI, FRANK C. "Studies in Delinquency: Part I, Personality Structure of Delinquent Boys." *Journal of Genetic Psychology* 74: 109-17; March 1949.
59. ZUBIN, JOSEPH. "Recent Advances in Screening the Emotionally Maladjusted." *Journal of Clinical Psychology* 4: 56-63; January 1948.

CHAPTER IV

Mental Health in Community Life

RALPH H. OJEMANN

THE THREE-YEAR period under review witnessed the publication of a number of studies of the effects on mental health of various aspects of the war. Many of these studies were begun during the war but could not be completed until the cessation of hostilities. The period also saw the publication of a number of studies bearing on the problem of building a peaceful society in an atomic age.

Effect of Forms of Government and Political Systems

It is interesting to note that the three-year period which included the years just before and after the close of the war produced some studies of the effect of administrative changes on mental health in which observations were made before and after the changes were introduced. These studies were made in Japanese relocation centers. In the current three-year cycle practically all of the studies are of governmental procedures already in operation.

Irving (42) in a study of the psychological aspects of the social credit movement in Alberta showed how the existing distrust of Eastern Canada and its institutions, the work of the United Farmers group, and the hope of financial rehabilitation when taken together had a widespread appeal. Furthermore the "positive comradeship" which members received seemed to supply a felt need. When these forces were welded by a powerful personality a strong motivation was built up.

A second analytical study of the effect of governmental procedures is that by MacCrone (49). He obtained data from a dominated African group thru biographical documents and direct group discussions. The resistive attitude which he found seemed to be related both to the knowledge by the group that they once had been a free people and that natives in adjoining British protectorates were not so severely discriminated against and to the pride they had in their own cultural and tribal organization.

Patrick (61) examined the laws relative to the rights of women as individuals in the United States, Great Britain, Sweden, and Russia in 1920-1939 and compared them with the laws of the Weimar Republic. A score of +1 was given if the law supported the independence of woman as an individual and a score of 0 if it did not. Totals for each country for laws affecting both married and single women and for those affecting only married women were obtained. The results indicated that altho there were some similarities in all of the governments, under the Weimar Republic married women had relatively few rights. The investigator sug-

gested that this may have made the transition from a republican to a Nazi form of government easier than it otherwise might have been.

Lewin (47) reported an interesting comparison of the aims of the Boy Scouts of America as set forth in Baden-Powell's *Scoutmastership* and the aims of Hitler Youth as set forth in Schirach's *Die Hitler Jugend, Idee und Gestalt*. A careful check was made of the reliability of the analyses. Nazi emphasis was significantly greater, statistically, on national loyalty, national identification, and determination.

Effect of Socio-economic and Class Status

Numerous studies of the relation of social status to various aspects of child development were reported during this period. Havighurst and Taba (38), in a study of character development in adolescents in a midwest community of 6000, found the following correlations between character reputation measures and social class: honesty .57, loyalty .54, responsibility .52, moral courage .49, and friendliness .40. Character reputation was measured by averaging opinions of age-mates and adults who knew the subject. Academic grades correlated .74 with measures of character reputation. This was much higher than the correlation of .49 with IQ. The authors concluded that the individual's character reputation in this community meant essentially conformity to the school, and the school culture in this case was in the main a middle-class culture.

In a study of social status and ability, correlations ranging from .20 to .40 were obtained. The correlations for number ability, verbal comprehension, and word fluency were somewhat higher than those for space ability, reasoning, and memory. Schulman and Havighurst (66) reported a correlation of .46 between vocabulary and social status.

The relation between the social class of the home and the behavior of the adolescent toward the school and other institutions was further studied by Hollingshead (41). The possibility that the family's attitude toward its social position as well as its actual social position may be a factor was suggested by Anderson (3).

Duvall (24) in a study of conceptions of parenthood found that Negro mothers, those of lower social classes, and those with older children tended to have more traditional and less developmental conceptions than did white mothers, those of the upper classes, and those with younger children. Differences among social classes in child-rearing practices were also studied by Davis and Havighurst (18, 37).

It has long been known that in American culture some correlation exists between parental occupation and intelligence. Robinson and Meenes (65) reported that this relationship in Negro children tends to be somewhat lower than in white children, and Haggard and his collaborators (36) suggested that cultural differences have not been taken into account adequately in the construction of intelligence tests.

Centers (10) obtained some interesting differences among occupational strata with respect to attitudes toward the place of women in the family, value of technological progress, and causes of success.

That the social status of occupations in Canada is much the same as that in the United States was shown in a study by Tuckman (75), who reported a correlation of .97 between the rankings by individuals in the two countries. Further evidence that changes in the social status of occupations take place slowly was furnished by Deeg and Paterson (19) who found a correlation of .97 between two rankings taken twenty years apart.

Social and psychological factors associated with group differences in fertility were examined by Kiser and Whelpton (44). The psychological effects of unionism were studied by Chalfen (11). The importance of a knowledge of the values of lower-class cultures as well as middle- and upper-class cultures by those who work with children was pointed out by Green (31).

Mental Health in Different Cultures

Underwood and Honigmann (76) in their comparison of Kaska Indians and a Haitian peasant community noted that the Indians become taciturn, individualistic adults while the Haitians are sociable and warm, but insecure. They suggested that differences in child training, especially variations in continuity of training and consistency of reward, may in part account for the difference.

Gulick (35) suggested that in the development of a satisfying form of government for Japan it will be necessary to change some rather fundamental beliefs which the Japanese have held. There is, for example, the religious conviction which essentially forces every Japanese to marry and reproduce, thus intensifying the overpopulation problem. The belief in the Emperor as a Deity is another case in point.

Thompson and Joseph (73) observed the interesting fact that white contacts with two Hopi communities of similar geographical and cultural background produced quite different results. In one the resulting changes were of an integrative nature while in the other they were disruptive. Such observations suggest that careful description of both the psychological nature of the contacts and of the individuals on whom the contacts operate are needed.

The importance of taking into account the attitudes and beliefs of a people in working with them is emphasized in a study of the Navahos by Kluckhohn and Leighton (45).

In a series of interesting studies of a Guatemalan community, Billig, Gillin, and Davidson (6, 29) compared the Mayan Indians and the Ladinos, who compose the population of the community. Both groups felt economically insecure. Rorschach results tended to show less constriction of personality in children of both groups than in adults. Despite the fact that abundant sources of conflict are present in the lives of these people,

the Rorschach records do not show a high incidence of anxiety. The investigators ascribed this fact to the refusal of these groups to face reality.

How a predominantly religious group, the Russian Mennonites, was transformed within a comparatively short period into a distinct ethnic group was described by Francis (26) and an analysis of the use of alcohol in the Mohave society was given by Devereux (21). It was noted that the drinking behavior of the Mohave is much like his ordinary behavior.

Problems of the Chinese youth were analyzed by Chin (13) and problems of Chinese working-class adults were reported by Chen (12). A type of relatively isolated social order without established classes or ranks but tending to produce a sense of inferiority relative to outsiders was described by Munch (56). How cultural differences affect the development of anxiety symptoms was analyzed by Henry (40).

Sectional Differences

Gray (30) using the *Allport-Vernon Study of Values Test*, found that southern white college girls gave about the same pattern of values as that obtained for Negro college women in an earlier study. The religious value ranked highest, the esthetic lowest. She interpreted these results as indicating that the southern environment has a similar effect on both Negro and white population as far as the development of values is concerned.

Differences in crime rates between Negroes and whites in four communities equated with respect to such socio-economic variables as home ownership and tenancy, occupational patterns, education, and number of persons in a household were reported by Moses (55). Felony rates and delinquency rates were markedly higher for the Negro areas.

Some of the characteristic differences among families in four regions of the United States and the mental hygiene implications of these differences were detailed in a series of four articles by Folsom (25) on the New England family, Cavan (9) on the Middle Western family, Hayner (39) on the Western family, and Vance (77) on the Southern family.

Differences between rural and urban areas were studied by Gross (34) and Trescott (74).

During the cycle under review considerable interest developed in the possibility of reducing intergroup and intersectional misunderstanding and tension thru educational and other methods. Developments in this area were summarized in the ninth yearbook of the John Dewey Society (43) and the bulletin of the Social Science Research Council (81).

Effect of War and Related Conditions

Odlum (60) found that the emotional reactions of children to air raids were comparatively few but that evacuation was a much more disturbing experience. Emotional disturbances in children under five when separated

from their mothers were so frequent and severe that separation was avoided whenever possible. The behavior problems most frequently found in children over five following evacuation included enuresis, emotional upsets, and delinquency. The last was more marked in boys than in girls. Anxiety symptoms when they did arise seemed to be centered not so much in worry about possible injury to parents as in fear of being deprived of their care. Speech disturbances were also noted.

The effects of war on American children was studied by Young (82) thru interviews with mothers of 120 children ranging in age from thirty-six to eighty-four months. Thirty-seven percent of the children seemed to show no particular effects. Disturbances in the remainder centered about (a) father in service, (b) increased fatigue and irritability of mothers, (c) war talk and war films, (d) absence of mother, and (e) housing. Further evidences of the effect which disruption of family life can have on children were revealed in case studies by Dukes (22). The effect of war on nationalistic and militaristic concepts of college students was studied by Stagner and Osgood (71). Freeston (27), using data from children's drawing and written work, repeated in 1948 the study she made of 1000 children in 1944. She concluded that age for age the children had gained in social maturity and were more aware of their limitations and possibilities. Because of this apparent gain in maturity and awareness Freeston suggested that the children were able to withstand upheavals of wartime and to show greater stability than were prewar children.

The effects of evacuation on a group of Japanese-American adolescents ranging in age from twelve to nineteen years were studied by Derrick (20). The effects of mobility were reported by Wattenberg (79). The development of anxiety tensions in children in a displaced persons camp and the possibility of redevelopment thru group therapy was studied by Althoff (2). A summary of the effects of war on youth was prepared by Watson (78).

The effects on children and adults of living in concentration camps were studied by Nirembeski (59). Increase in terror and fear symptoms and marked changes in the standard of values were noted.

A variety of studies of psychiatric casualties among military personnel were reported during this period. Representative of this group were those by Appel, Beebe, and Hilger (4), Brill (7), Gardner and Aaron (28), Grinker (33), Lidz (48), and Miller (53).

Problems involved in the resettlement of British prisoners of war were studied by Curle (17). Some of the consequences of evacuation of Japanese Americans were reported by Rademaker (62). A number of studies such as that by Segalman (68) explored the problems of displaced persons. Changes in civilian behavior during and following the war are reflected in a study of postwar increase in suicide (52).

Changes in attitudes toward Germans, Japanese, Jews, and Nazis from 1935 to 1945 as studied by Remmers (63) and Remmers and Wood (64) showed a sharp drop in attitude toward Japanese and Nazis at the be-

ginning of the war, with no change in attitude toward Nazis but a marked upturn toward Japanese as the war progressed. There were no significant changes in attitude toward the Jew.

How resistant stereotypes of college women are to change despite significant changes in world events was reported by Seags (67). Differences in social attitudes among German and American youth were reported by McGranahan (50).

Community Planning for Rehabilitation of the Emotionally Maladjusted

The interest noted in the closing years of the war and the first postwar year in the rehabilitation of the veteran has continued into the three-year period under review. Considerable interest has developed in broadening community plans to include not only veterans in need of mental hygiene services but also all emotionally maladjusted individuals. To solve the problem of locating those in need of help considerable attention has been given to the possibility of developing screening devices. The paper by Zubin (83) deals with this problem.

The rehabilitation of the emotionally and mentally maladjusted veteran was considered by Bauer (5), Burton, Eaton, and McMahan (8), Condon (16), Dunn (23), Greenhill and Lowenbach (32), and Seidenfeld (69), among others. Community planning for the mental hygiene of the aged was discussed by Kraus (46) and for the mental health of industrial employees by Smith (70).

Discussions of community planning have not stopped with overcoming the ravages of the war, but have extended into the development of a peacetime society in an atomic age, as was noted by Alexander (1), Chisholm (14), Coleman (15), Menninger (51), and Stone, Castendyck, and Hansen (72).

Delinquency and Community Factors

Mintz (54) reexamined data reported in a previous study on the relationship between lynchings and certain economic indices. The correlations between Negro lynchings and cotton values were not significant, and the correlations between the Ayres index and deviations from the lynching trend were only slightly significant.

The conception that delinquency is multiple-caused and that the combined efforts of home, school, and community are needed in an effective attack upon this problem received recognition in numerous papers. A summary of the findings in this area is given in the 1945 *Yearbook* of the National Probation Association (57), the *Forty-Seventh Yearbook* of the National Society for the Study of Education (58), and a Public Affairs Pamphlet (80).

Bibliography

1. ALEXANDER, FRANZ. "Mental Hygiene in the Atomic Age." *Mental Hygiene* 30: 529-44; October 1946.
2. ALTHOFF, BECKY. "Observations on the Psychology of Children in a D. P. Camp." *Journal of Social Casework* 29: 17-22; January 1948.
3. ANDERSON, WALTER ALBIN. "Family Social Participation and Social Status Self-Ratings." *American Sociological Review* 11: 253-58; June 1946.
4. APPEL, JOHN W.; BEEBE, GILBERT W.; and HILGER, DAVID W. "Comparative Incidence of Neuropsychiatric Casualties in World War I and World War II." *American Journal of Psychiatry* 103: 196-99; September 1946.
5. BAUER, ALFRED K. "Readjustment Problems of Veterans." *Quarterly Review of Psychiatry and Neurology* 2: 522-28; October 1947.
6. BILLIG, OTTO; GILLIN, JOHN; and DAVIDSON, WILLIAM. "Aspects of Personality and Culture in a Guatemalan Community: Ethnological and Rorschach Approaches." *Journal of Personality* 16: 326-68; March 1948.
7. BRILL, NORMAN Q. "Neuropsychiatric Examination of Military Personnel Recovered from Japanese Prison Camps." *Bulletin of Army Medical Department* 5: 429-38; April 1946.
8. BURTON, IRVING F.; EATON, MERRILL T., JR.; and McMAHAN, HERBERT G. "Incidence of Neuropsychiatric Disease in the Demobilized Veteran: a Study of 10,000 Army Separates." *American Journal of Psychiatry* 103: 165-71; September 1946.
9. CAVAN, RUTH SHONLE. "Regional Family Patterns: the Middle Western Family." *American Journal of Sociology* 53: 430-31; May 1948.
10. CENTERS, RICHARD. "Attitude and Belief in Relation to Occupational Stratification." *Journal of Social Psychology* 27: 159-85; May 1948.
11. CHALFEN, LEO. "The Psychological Effects of Unionism on the Member." *Journal of Social Psychology* 25: 133-37; February 1947.
12. CHEN, TA. "Basic Problems of the Chinese Working Class." *American Journal of Sociology* 53: 184-91; November 1947.
13. CHIN, AI-LI S. "Some Problems of Chinese Youth in Transition." *American Journal of Sociology* 54: 1-9; July 1948.
14. CHISHOLM, GEORGE B. "The Reestablishment of Peacetime Society; the Responsibility of Psychiatry." *Psychiatry* 9: 3-11; February 1946.
15. COLEMAN, JULES V. "Mental Hygiene." *Progress in Neurology and Psychiatry; and Annual Review, 1944-45*. (Edited by Ernest A. Spiegel.) New York: Grune and Stratton, 1946. p. 435-46.
16. CONDON, MARGARET E. "A Follow-Up Study of One Hundred Veterans Counseled at the City College Veterans Administration Vocational Advisement Unit." *Journal of Rehabilitation* 13: 27-31, 36; December 1947.
17. CURLE, ADAM. "Transitional Communities and Social Reconnection; a Follow-Up Study of the Resettlement of British Prisoners of War. Part I." *Human Relations* 1: 42-68; June 1947.
18. DAVIS, ALLISON, and HAVIGHURST, ROBERT J. "Social Class and Color Differences in Child-Rearing." *American Sociological Review* 11: 698-710; December 1946.
19. DEEG, MAETHEL E., and PATERSON, DONALD G. "Changes in Social Status of Occupations." *Occupations* 25: 205-208; January 1947.
20. DERRICK, EDITH W. "Effects of Evacuation on Japanese-American Youth." *School Review* 55: 356-62; June 1947.
21. DEVEREUX, GEORGE. "The Function of Alcohol in Mohave Society." *Quarterly Journal for the Study of Alcohol* 9: 207-51; September 1948.
22. DUKES, ETHEL. "The Psychological Effects of War on the Family and Its Individual Members." *American Journal of Orthopsychiatry* 16: 64-73; January 1946.
23. DUNN, WILLIAM H. "The Readjustment of the Mentally Deficient Soldier in the Community." *American Journal of Mental Deficiency* 51: 48-51; July 1946.
24. DUVAL, EVALYN MILLS. "Conceptions of Parenthood." *American Journal of Sociology* 52: 193-203; November 1946.
25. FOLSOM, JOSEPH K. "Regional Family Patterns: the New England Family." *American Journal of Sociology* 53: 423-25; May 1948.
26. FRANCIS, EMERICK K. "The Russian Mennonites: from Religious to Ethnic Groups." *American Journal of Sociology* 54: 101-107; September 1948.

27. FREESTON, P. M. "The Influence of the War on Juvenile and Adolescent Vocational Interest." *Occupational Psychology* 20: 139-49; July 1946. (London.)
28. GARDNER, GEORGE E., and AARON, SADIE. "The Childhood and Adolescent Adjustment of Negro Psychiatric Casualties." *American Journal of Orthopsychiatry* 16: 481-95; July 1946.
29. GILLIN, JOHN. "Race Relations Without Conflict: a Guatemalan Town." *American Journal of Sociology* 53: 337-43; March 1948.
30. GRAY, SUSAN W. "A Note on the Values of Southern College Women, White and Negro." *Journal of Social Psychology* 25: 239-41; May 1947.
31. GREEN, ARNOLD W. "The Middle-Class Male Child and Neurosis." *American Sociological Review* 11: 31-41; February 1946.
32. GREENHILL, MAURICE H., and LOWENBACH, HANS. "Neuropsychiatric Rehabilitation Problems of Discharged Veterans in Rural Communities of the South." *Military Neuropsychiatry*. Proceedings of the Association for Nervous and Mental Disease, December 15-16, 1944. Research Publications, Vol. XXV. Baltimore: Williams and Wilkins Co., 1946. p. 322-39.
33. GRINKER, ROY R. "A Dynamic Study of War Neuroses in Flyers Returned to the United States." *Military Neuropsychiatry*. Proceedings of the Association for Nervous and Mental Disease, December 15-16, 1944. Research Publications, Vol. XXV. Baltimore: Williams and Wilkins Co., 1946. p. 26-37.
34. GROSS, NEAL. "Cultural Variables in Rural Communities." *American Journal of Sociology* 53: 344-50; March 1948.
35. GULICK, ADDISON. "The Problem of Right and Wrong in Japan and Some of Its Political Consequences." *Journal of Social Psychology* 26: 3-20; August 1947.
36. HAGGARD, ERNEST A.; DAVIS, ALLISON; and HAVIGHURST, ROBERT J. "Some Factors Which Influence Performance of Children on Intelligence Tests." *American Psychologist* 3: 265-66; December 1948.
37. HAVIGHURST, ROBERT J. "Child Development in Relation to Community Social Structure." *Child Development* 17: 85-89; March 1946.
38. HAVIGHURST, ROBERT J., and TABA, HILDA. *Adolescent Character and Personality*. New York: John Wiley and Sons, 1949. 315 p.
39. HAYNER, NORMAN S. "Regional Family Patterns: The Western Family." *American Journal of Sociology* 53: 432-34; May 1948.
40. HENRY, JULES. "Environment and Symptom Formation." *American Journal of Orthopsychiatry* 17: 628-32; October 1947.
41. HOLLINGSHEAD, AUGUST B. "Selected Characteristics of Classes in a Middle Western Community." *American Sociological Review* 12: 385-95; August 1947.
42. IRVING, JOHN A. "Psychological Aspects of the Social Credit Movement in Alberta: Part II, The Response of the People." *Canadian Journal of Psychology* 1: 75-86; June 1947.
43. KILPATRICK, WILLIAM H., and VAN TIL, WILLIAM A., editors. *Intercultural Attitudes in the Making*. Ninth Yearbook of the John Dewey Society. New York: Harper and Brothers, 1947. 246 p.
44. KISER, CLYDE, and WHELPTON, PASCAL K. "Progress Report on the Study of Social and Psychological Factors Affecting Fertility." *American Sociological Review* 12: 175-86; April 1947.
45. KLUCKHOHN, CLYDE, and LEIGHTON, DOROTHEA. *The Navaho*. Cambridge: Harvard University Press, 1946. 258 p.
46. KRAUS, HERTHA. "Community Planning for the Aged; Outline of a Working Hypothesis." *Journal of Gerontology* 3: 129-40; April 1948.
47. LEWIN, HERBERT S. "Hitler Youth and the Boy Scouts of America: a Comparison of Aims." *Human Relations* 1: 206-27; November 1947.
48. LIDZ, THEODORE. "Psychiatric Casualties from Guadalcanal; a Study of Reactions to Extreme Stress." *Psychiatry* 9: 193-213; August 1946.
49. MACCRONE, IAN D. "Reaction to Domination in a Colour-Caste Society: a Preliminary Study of the Race Attitudes of a Dominated Group." *Journal of Social Psychology* 26: 69-98; August 1947.
50. McGRANAHAN, DONALD V. "A Comparison of Social Attitudes Among American and German Youth." *Journal of Abnormal and Social Psychology* 41: 245-57; July 1946.
51. MENNINGER, WILLIAM C. *Psychiatry in a Troubled World; Yesterday's War and Today's Challenge*. New York: Macmillan Co., 1948. 636 p.

52. METROPOLITAN LIFE INSURANCE COMPANY. "Postwar Increase in Suicide." *Statistical Bulletin* 27: 6-7; April 1946.
53. MILLER, MILTON L. "Effects of Combat on a Delinquent Boy." *American Journal of Orthopsychiatry* 18: 334-39; April 1948.
54. MINTZ, ALEXANDER. "A Re-examination of Correlations Between Lynchings and Economic Indices." *Journal of Abnormal and Social Psychology* 41: 154-60; April 1946.
55. MOSES, EARL R. "Differentials in Crime Ratios Between Negroes and Whites Based on Comparisons of Four Socio-Economically Equated Areas." *American Sociological Review* 12: 411-20; August 1947.
56. MUNCH, PETER A. "Cultural Contacts in an Isolated Community: Tristan da Cunha." *American Journal of Sociology* 53: 1-8; July 1947.
57. NATIONAL PROBATION ASSOCIATION. *Social Correctives for Delinquency*. Yearbook 1945. New York: the Association, 1945. 328 p.
58. NATIONAL SOCIETY FOR THE STUDY OF EDUCATION. *Juvenile Delinquency and the Schools*. Forty-Seventh Yearbook, Part I. Chicago: University of Chicago Press, 1948. 280 p.
59. NIREMBERSKI, M. "Psychological Investigation of a Group of Internees at Belsen Camp." *Journal of Mental Science* 92: 60-74; January 1946.
60. ODLUM, DORIS M. "Psychological Effects of the War on British Children." *Journal of the American Medical Womens Association* 2: 172-77; April 1947.
61. PATRICK, CATHERINE. "Relations Between Government and the Status of Women." *Journal of Social Psychology* 23: 163-74; May 1946.
62. RADEMAKER, JOHN A. "Consequences of Evacuation of Japanese Americans from the Pacific Coast of the United States." *Social Process in Hawaii*, Vol. IX-X. Honolulu: University of Hawaii, Sociology Club, July 1945. p. 98-102.
63. REMMERS, HERMANN H. "Changes in Attitudes Toward Germans, Japanese, Jews, and Nazis as Affected by the War." *School and Society* 63: 118-19; February 16, 1946.
64. REMMERS, HERMANN H., and WOOD, WENDELL F. "Changes in Attitudes Toward Germans, Japanese, Jews, and Nazis." *School and Society* 65: 484-87; June 28, 1947.
65. ROBINSON, MARY LOUISE, and MEENES, MAX. "The Relationship Between Test Intelligence of Third-Grade Negro Children and the Occupations of Their Parents." *Journal of Negro Education* 16: 136-41; April 1947.
66. SCHULMAN, MARY JEAN, and HAVIGHURST, ROBERT J. "Relations Between Ability and Social Status in a Midwestern Community: Part IV, Size of Vocabulary." *Journal of Educational Psychology* 38: 437-42; November 1947.
67. SEAGO, DOROTHY W. "Stereotypes: Before Pearl Harbor and After." *Journal of Psychology* 23: 55-63; January 1947.
68. SEGALMAN, RALPH. "The Psychology of Jewish Displaced Persons." *Jewish Social Service Quarterly* 24: 361-69; June 1947.
69. SEIDENFELD, MORTON A. "The Role of Mental Hygiene in Health." *Journal of Health and Physical Education* 18: 295-96, 353-54; May 1947.
70. SMITH, LEO F., and LIPSETT, LAURENCE. "Psychological Services for an Industrial Community." *Personnel Journal* 27: 130-34; September 1948.
71. STAGNER, ROSS, and OSGOOD, CHARLES E. "Impact of War on a Nationalistic Frame of Reference: Part I, Changes in General Approval and Qualitative Patterning of Certain Stereotypes." *Journal of Social Psychology* 24: 187-215; November 1946.
72. STONE, SYBIL A.; CASTENDYCK, ELSA; and HANSEN, HAROLD B. *Children in the Community*. Federal Security Agency, Social Security Administration, Children's Bureau Publication No. 317. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1946. 182 p.
73. THOMPSON, LAURA, and JOSEPH, ALICE. "White Pressures on Indian Personality and Culture." *American Journal of Sociology* 53: 17-22; July 1947.
74. TRESCOTT, PAUL H. "The Broad Gap Between Rural and Urban Opinion." *International Journal of Opinion and Attitude Research* 1: 87-92; March 1947.
75. TUCKMAN, JACOB. "Social Status of Occupations in Canada." *Canadian Journal of Psychology* 1: 71-74; March 1947.
76. UNDERWOOD, FRANCES W., and HONIGMANN, IRMA. "A Comparison of Socialization and Personality in Two Simple Societies." *American Anthropologist* 49: 557-77; October-December 1947.

77. VANCE, RUPERT B. "Regional Family Patterns: The Southern Family." *American Journal of Sociology* 53: 426-39; May 1948.
78. WATSON, GOODWIN. *Youth After Conflict*. New York: Association Press, 1947. 300 p.
79. WATTENBERG, WILLIAM W. "Mobile Children Need Help." *Educational Forum* 12: 335-42; March 1948.
80. WEITZ, ALICE C. *Youth and Your Community*. Public Affairs Pamphlet No. 108. New York: Public Affairs Committee (30 Rockefeller Plaza): July 1945. 31 p.
81. WILLIAMS, ROBIN M., JR. *The Reduction of Intergroup Tensions: A Survey of Research on Problems of Ethnic, Racial, and Religious Group Relations*. Bulletin, No. 57. New York: Social Science Research Council, 1947. 153 p.
82. YOUNG, FLORENCE. "Psychological Effects of War on Young Children." *American Journal of Orthopsychiatry* 17: 500-10; July 1947.
83. ZUBIN, JOSEPH. "Recent Advances in Screening the Emotionally Maladjusted." *Journal of Clinical Psychology* 4: 56-63; January 1948.

CHAPTER V

Mental Health in Schools and Colleges

HOWARD Y. McCLUSKY

THE LITERATURE covered by this report revealed the same trends which have previously been reported in the corresponding numbers of the REVIEW for 1940, 1943, and 1946. In addition to these established trends, however, new emphases have emerged to enrich the interaction of mental hygiene and education. These emphases support the postulate that the central instruments of the educational process, namely, the curriculum, method, administration, and the teacher, should supply the major contribution of education to mental health. Clinical services to children and youth in schools and colleges will always be important, but in a sense they will always be peripheral because by definition the basic concern of mental hygiene is not remediation but prevention and facilitation.

Mental Hygiene and the Curriculum

A penetrating statement of the preceding view with respect to the curriculum was given by Kubie (25). As a psychiatrist he argued that the curriculum can be used as an instrument of both diagnosis and therapy because a pupil's interests are a cue to his underlying motivations and conflicts, and because at the same time the curriculum may contribute to his emotional maturation thru self-knowledge.

Arisman (4) gave research embodiment to Kubie's thesis by developing criteria to evaluate elementary curriculums in terms of meeting the emotional needs of children. Child, Potter, and Levine (14) after analyzing 914 stories in third-grade readers concluded that the readers make a definite impact on the personality development of children by making certain kinds of motives and discouraging others. This investigation is an important methodological contribution to the field of content analysis.

Taba and her associates (46) annotated a carefully selected list of readings which will presumably give high-school students, among other things, a healthy insight into human relations. Alschuler and Hattwick (2) published an elaborate two-volume report on the relation between painting and personality in young children. Naumberg (31) studied the free art expression of problem children and adolescents as a means of diagnosis and therapy, while Johnson (23) gave a general discussion of fine arts as a means of personal integration at all stages of development. Soibelman (41) reviewed the literature on the therapeutic and industrial uses of music.

Systematic course instruction related in whole or in part to mental hygiene has appeared more frequently as a function of the regular cur-

riculum. At the college level, Pepinsky (32) listed a helpful bibliography of thirty-three items related to this problem and discussed the feasibility of individual therapy in classroom groups. Tyson (48), guided by the opinion of eight analysts and 124 college undergraduates, concluded that bibliotherapy has some value for those with mild personality disorders. Snyder and Snyder (40) reported personality changes resulting from a course in mental hygiene for college students.

Relation of Personal Adjustment to Reading and Language Achievement

Evidence is accumulating in support of the thesis that the learning of any subject must be viewed in terms of the total personality of the learner. Impressive confirmation of this point is contained in studies of reading difficulties. Blanchard (9) used psychoanalytic concepts to illuminate the problem of reading disability. Vorhaus (49) stated that nonreading is an expression of resistance. After reviewing the maladjustments of eighty children, Missildine (28) asserted that reading difficulty is a symptom of underlying emotional disturbance often traceable to the coercive attitudes of the children's parents. Russell (35), using a thirty-four item bibliography, reviewed the research on reading disability and mental health. Turning to another department of language, Dunkel (17) analyzed the group Rorschach records of students of Latin and concluded that language performance may be influenced in part by the personality characteristics of the individual pupil.

Methods of Instruction and Mental Health

Recent developments have indicated much greater insight into the contribution which the method of instruction may make to the mental health of pupils. Kay (24) and Grambs (18) made a strong case for the value of psychodrama as a method of teaching. Coleman (15) attributed his failure to secure conclusive results in using role playing as an instructional aid, to the faulty design of his experiment. On the other hand, Moreno (29), Bowman (11), and Haas (20) reported favorable results in their application of the same technic to problems of teaching.

Nondirective procedures received serious attention as a productive method of instruction. Cantor (13) produced the most impressive report of this method of instruction at the college level. Axline (5) applied the same theory to play therapy, making constant reference to its relevance for classroom instruction. Albrecht and Gross (1) presented a research-oriented discussion of the values of nondirective teaching, and in a carefully conducted experiment, Gross (19) produced evidence to the effect that nondirective procedures are effective in developing self-insight on the part of college students of psychology.

Turning to other methods, Brower (12) made good use of the auto-

biography in teaching a course in abnormal psychology for college students, and Sims (38) gave convincing data on the value of the essay examination as a projective technic in uncovering the unacknowledged motivations of students.

The School Group as a Setting for Personal Adjustment

There has developed, among competent observers, an increasing awareness of the importance of the face-to-face group as a setting for personal adjustment. A comparable appreciation of the opportunity which the school at all levels affords for the formation and nurture of such groups also seems to have emerged. Much of the research in this field dealt with methods of defining the configuration and appraising the status of these clusters. The study of Young (51) at the elementary-school level and that of Bonney (10) at the secondary-school level were representative of this type of investigation. Drawing on a thoro knowledge of sociometry, Jennings (22) summarized the following four characteristics which differentiate children's groups with high interaction and morale: (a) the extent of the network of association; (b) the kind and number of leadership positions produced; (c) the closeness of the less prominent to the more prominent members; and (d) the variety of roles which individuals in the group have to each other. She urged that the knowledge of these characteristics should be used in promoting emotional and social adjustment.

In support of Jennings's point, McClelland and Ratliff (27) outlined four steps for using sociometry in the cultivation of good social adjustment. Shoobs (37), at the ninth-grade level, and Thrasher and Kerstetter (47), at the university level, reported experiments which tested the advice of Jennings, McClelland, and Ratliff in live situations. Smucker (39) conducted a related study with cliques in a college dormitory.

Teacher Personality and Teacher Relations

One of the cardinal components of the mental hygiene viewpoint is stress on the importance of the personality of the adult (parent and/or teacher) in the psychological environment of the child. What kind of person is the parent and what kind of person is the teacher are basic questions aimed at this point. Symonds (45), who has done extensive work on this problem, suggests in evaluating the teacher personality that any individual who is to succeed as a teacher (a) should like teaching; (b) should be personally secure and should have self-respect, dignity, and courage as opposed to feelings of inferiority and inadequacy; (c) must be able to identify herself with children; (d) must be emotionally stable; (e) must be free from anxiety; and (f) must not be overly self-centered. In an analysis of letters from 12,000 pupils describing "The Teacher Who Has Helped Me Most," Witty (50) found a cooperative democratic attitude, the kindness and consideration for the individual, and patience among the highest ranking traits.

Perhaps the most significant researches in this area are those by Anderson and Barker. In earlier studies, Anderson found that dominative behavior on the part of teachers leads to unhappiness and frustration in children, while integrative behavior on the part of teachers reduced conflict and increased harmony among children. His method involved the use of a carefully controlled procedure for observing the interaction of children and their teachers. Studying samples of teacher behavior at both ends of a year's interval, Anderson, Brewer, and Reed (3) concluded that certain behavior patterns and personality characteristics of teachers persisted into the second year, even tho the teachers were then with different children, and the children's behavior tended largely to change with different teachers. Barker (6) used the interview, case study, and supervisors' ratings in studying the best, average, and below average teachers from twenty schools. The results showed a high relationship between efficiency in teaching and the teacher's adjustment to pupils, administrators, and associates, as well as the teacher's possession of a philosophy of life. Barker's study contains fifty-four references.

If we can accept the foregoing testimony concerning the importance of the teacher's personality, more attention should be given to its assessment. Symonds (44) presented a thoro analysis of present practices and inadequacies with respect to this problem and proposed many novel adaptations of newer technics of evaluation. He rated the interview as the most valuable method for appraising teacher personality. Blair (8) did not find much help in applying the multiple-choice *Rorschach Test* to a study of the personality adjustments of teachers.

In a different vein, but in a study related to the general problem of teacher adjustment, Leeds and Cook (26) reported the construction of a useful scale for determining teacher-pupil attitudes. While a reliability coefficient of .91 was obtained, the results revealed little relationship between the inventory scores and personal factors of the teachers.

Haas (21) conducted a novel study of the attitudes of college students toward their English instructors. He secured his data in a conventional manner, but his technic of data analysis is an important methodological contribution to role study. Seventy students volunteered opinions of their English instructors. A role study of these statements revealed the motivational framework of the student's vocabulary and the unmistakable projection of a social stereotype. Haas' analysis led to the formulation of the hypothesis that the attraction-rejection pattern characterizing the interpersonal structure of the whole group might be taken as an index of the kind and degree of communication present in the learning situation. He further hypothesized that the more positive the interaction in the group is, the more dynamic is the communication and the sounder the learning.

Again, if the evidence on the importance of the teacher's personality is correct, the training of teachers in the understanding of children is equally important. In this connection, Rath (33) presented a helpful review of recent research in this field. Some of his experimental data revealed statis-

tically significant changes in pupils and in teacher-pupil relationships resulting from a program of education in human relationships.

The Dynamics of School Administration

So far, what might be called the mental hygiene aspect of school administration has not been the object of much investigation. At the same time, however, a number of advances are occurring in the application of the principles of social psychology and cultural anthropology to the management of people in intrainstitutional relations which promise to place the problems of school administration in a wholly new perspective. It is the prediction of this reviewer that within the near future, perhaps in time for the REVIEW's next number on mental hygiene, studies of the dynamics and mental hygiene of school administration will appear. A step in this direction has already been taken by Cooper (16). He has proposed a number of stimulating applications of sociometry to school administration. He has argued for the usefulness of the sociometric concept of structure with stars, clusters, and chains, the concept of operational as opposed to official leader, and the concept of grouping and regrouping. He also proposed sociometry as a technic for a continuous analysis of groups of citizens, employees, and pupils, and as an aid to research in school administration.

The Mental Health Status of College Students

Using the Mooney checklist, Stone (43) studied the problems of students in a teachers college. Women listed twice as many problems as men, altho men worried more about finances. There were some differences between the types of problems troubling veterans as compared with other civilians, and those disturbing married as compared with unmarried men. In another investigation using the *Thurstone Personality Schedule*, Steckel (42) found some relation between the ability to handle finances and the psychological adjustment of the student.

An important aspect of the adjustment of college students is their ability to emancipate themselves from the emotional adhesions of their home life. The first test of emancipation comes when the student first enters the college community. Interested in this problem, Rose (34), using the *Bell Adjustment Inventory* and the *Minnesota Multiphasic Personality Inventory*, studied the homesickness of sixty-six first-year college women. Her results suggest that the type of home life is related to the experience and amount of homesickness. They also indicated that the well-adjusted first-year woman is never homesick and that the homesick woman tends toward psychasthenic deviation. In a related investigation, Sherman (36), using a sixty-item questionnaire, attempted to measure the emancipation from parents of university students of both sexes. The most emancipated group was composed of 72 percent men and 28 percent

women. Emancipation was related to type of parent-student relations and the methods of parental control.

Bier (7) administered the *Minnesota Multiphasic Personality Inventory* to four matched groups of medical, law, dental, and other college students who were selected to act as standards of comparison for a Catholic seminary group. All groups gave evidence of less satisfactory adjustment than the population at large and the seminary group proved to be the most deviant of an already deviant population.

Nahm (30) constructed a test to measure the ability to understand and apply mental hygiene principles and administered it to 422 senior students in twelve schools of nursing in Minnesota. Many students were seriously deficient in a knowledge of mental hygiene. Of particular importance was their confidence in the efficacy of "good advice" and their lack of appreciation of the importance of home background in producing personality maladjustment.

Bibliography

1. ALBRECHT, MILTON, and GROSS, LLEWELLYN. "Nondirective Teaching." *Sociology and Social Research* 32: 874-81; May-June 1948.
2. ALSCHULER, ROSE H., and HATTWICK, LA BERTA WEISS. *Painting and Personality: A Study of Young Children*. Chicago: University of Chicago Press, 1947. Vol. I, 263 p. Vol. II, 325 p.
3. ANDERSON, HAROLD H.; BREWER, JOSEPH E.; and REED, MARY FRANCES. *Studies of Teachers' Classroom Personalities: Part III, Follow-up Studies of the Effects of Dominative and Integrative Contacts on Children's Behavior*. American Psychological Association, Applied Psychology Monographs No. 11. Stanford University, Calif.: Stanford University Press, 1946. 156 p.
4. ARISMAN, KENNETH JOHN. "The Development of Criteria to Evaluate Elementary Curricula in Terms of Meeting the Emotional Needs of Children." *Ohio State University, Abstracts of Dissertations 1946-47*. Columbus: Ohio State University, 1947. p. 17-25.
5. AXLINE, VIRGINIA MAE. *Play Therapy: The Inner Dynamics of Childhood*. Boston: Houghton Mifflin Co., 1947. 379 p.
6. BARKER, M. ELIZABETH. *Personality Adjustments of Teachers Related to Efficiency in Teaching*. New York: Teachers College, Columbia University, 1946. 97 p.
7. BIER, WILLIAM C. *A Comparative Study of a Seminary Group and Four Other Groups on the Minnesota Multiphasic Personality Inventory*. Studies in Psychology and Psychiatry, No. 7. Washington, D. C.: Catholic University of America, 1948. 107 p.
8. BLAIR, GLENN M. "Personality Adjustments of Teachers as Measured by the Multiple Choice Rorschach Test." *Journal of Educational Research* 39: 652-57; May 1946.
9. BLANCHARD, PHYLLIS. "Psychoanalytic Contributions to the Problems of Reading Disabilities." *Psychoanalytic Study of the Child*. Volume II. New York: International Universities Press, 1946. p. 163-87.
10. BONNEY, MERL E. "Sociometric Study of Agreement Between Teacher Judgments and Student Choices: In regard to the Numbers of Friends Possessed by High School Students." *Sociometry* 10: 133-46; May 1947.
11. BOWMAN, CLAUDE C. "The Psychodramatic Method in Collegiate Instructions: A Case Study." *Sociatry* 1: 421-30; March 1948.
12. BROWER, DANIEL. "The Use of an Autobiography in a Course in Abnormal Psychology." *Journal of Genetic Psychology* 71: 253-57; December 1947.
13. CANTOR, NATHANIEL. *Dynamics of Learning*. Buffalo, N. Y.: Foster and Stewart, 1946. 282 p.

14. CHILD, IRVIN L.; POTTER, ELMER H.; and LEVINE, ESTELLE M. *Children's Textbooks and Personality Development; An Exploration in the Social Psychology of Education*. Psychological Monographs, Vol. LX, No. 3. Washington, D. C.: American Psychological Association, 1946. 54 p.
15. COLEMAN, WILLIAM. "Role-playing as an Instructional Aid." *Journal of Educational Psychology* 39: 427-35; November 1948.
16. COOPER, DAN H. "The Potentialities of Sociometry for School Administration." *Sociometry* 10: 111-21; May 1947.
17. DUNKEL, HAROLD B. "The Effect of Personality on Language Achievement." *Journal of Educational Psychology* 38: 177-82; March 1947.
18. GRAMBS, JEAN D. "Dynamics of Psychodrama in the Teaching Situation." *Societry* 1: 383-99; March 1948.
19. GROSS, LLEWELLYN. "An Experimental Study of the Validity of the Nondirective Method of Teaching." *Journal of Psychology* 26: 243-48; July 1948.
20. HAAS, ROBERT BARTLETT. "Psychodrama as a Guidance Technique in an Experimental School." *Sociometry* 9: 254-62; May 1946.
21. HAAS, ROBERT BARTLETT. "A Role Study from Pupil Motivations; Students Evaluate Their English Instructors." *Sociometry* 10: 200-10; May 1947.
22. JENNINGS, HELEN H. "Using Children's Social Relations for Learning." *Journal of Educational Sociology* 21: 543-52; May 1948.
23. JOHNSON, ROBERT E. "Fine Arts as a Means of Personality Integration." *School Review* 56: 223-28; April 1948.
24. KAY, LILLIAN WALD. "Role-playing as a Teaching Aid—Some Theoretical Considerations." *Sociometry* 10: 165-67; May 1947.
25. KUBIE, LAWRENCE S. "The Psychiatrist Considers Curriculum Development." *Teachers College Record* 50: 241-46; January 1949.
26. LEEDS, CARROLL H., and COOK, WALTER W. "The Construction and Differential Value of a Scale for Determining Teacher-Pupil Attitudes." *Journal of Experimental Education* 16: 149-59; December 1947.
27. MCCLELLAND, F. M., and RATLIFF, JOHN A. "The Use of Sociometry as an Aid in Promoting Social Adjustment in a Ninth-Grade Home Room." *Sociometry* 10: 147-53; May 1947.
28. MISSILDINE, WHITNEY H. "The Emotional Background of Thirty Children with Reading Disabilities with Emphasis on its Corrective Elements." *Nervous Child* 5: 263-72; July 1946.
29. MORENO, FLORENCE B. "Sociodrama in the Sociology Classroom." *Societry* 1: 404-13; 1948.
30. NAHM, HELEN. "Mental Hygiene Knowledge of Senior Students in Schools of Nursing." *Journal of Educational Research* 41: 193-203; November 1947.
31. NAUMBERG, MARGARET. *Studies of the "Free" Art Expression of Behavior Problem Children and Adolescents as a Means of Diagnosis and Therapy*. Nervous and Mental Disease Monographs, No. 71. New York: Nervous and Mental Disease Monographs, 1947. 225 p.
32. PEPINSKY, HAROLD B. "Measuring Outcomes of Classroom Therapy." *Educational and Psychological Measurements* 7: 713-24; Winter 1947.
33. RATHS, LOUIS. "Some Recent Researches in Helping Teachers To Understand Children." *Journal of Educational Sociology* 21: 205-11; December 1947.
34. ROSE, ANNELIES ARGELANDER. "A Study of Homesickness in College Freshmen." *Journal of Social Psychology* 26: 185-202; November 1947.
35. RUSSELL, DAVID H. "Reading Disabilities and Mental Health: A Review of Research." *Understanding the Child* 16: 24-32; January 1947.
36. SHERMAN, ARTHUR W., JR. "Emancipation Status of College Students." *Journal of Genetic Psychology* 68: 171-80; June 1946.
37. SHOOPS, NAHUM E. "Sociometry in the Classroom." *Sociometry* 10: 154-64; May 1947.
38. SIMS, VERNER M. "The Essay Examination Is a Projective Technique." *Educational and Psychological Measurements* 8: 15-31; Spring 1948.
39. SMUCKER, ORDEN. "The Campus Clique as an Agency of Socialization." *Journal of Educational Sociology* 21: 163-68; November 1947.
40. SNYDER, WILLIAM U., and SNYDER, BARBARA JUNE. "Implications for Therapy of Personality Changes Resulting from a Course in Mental Hygiene." *American Psychologist* 3: 286-87; July 1948.

41. SOIBELMAN, DORIS. *Therapeutic and Industrial Uses of Music: A Review of the Literature*. New York: Columbia University Press, 1948. 274 p.
42. STECKEL, MINNIE L. "Financial Insecurity as a Factor in the Maladjustment of College Freshmen." *Journal of Social Psychology* 25: 247-51; May 1947.
43. STONE, L. GORDON. "Student Problems in a Teachers College." *Journal of Educational Psychology* 39: 404-16; November 1948.
44. SYMONDS, PERCIVAL M. "Evaluation of Teacher Personality." *Teachers College Record* 48: 21-34; October 1946.
45. SYMONDS, PERCIVAL M. "Personality of the Teacher." *Journal of Educational Research* 40: 652-61; May 1947.
46. TABA, HILDA, director. *Reading Ladders for Human Relations*. New York: American Council on Education, Intergroup Education in Cooperating Schools, 1947. 67 p.
47. THRASHER, FREDERIC M., and KERSTETTER, LEONA M. "Sociometry and an Activity Program on the University Level." *Sociometry* 10: 178-85; May 1948.
48. TYSON, ROBERT. "The Validation of Mental Hygiene Literature." *Journal of Clinical Psychology* 4: 304-306; June 1948.
49. VORHAUS, PAULINE G. "Nonreading as an Expression of Resistance." *Rorschach Research Exchange* 10: 60-69; June 1946.
50. WITTY, PAUL. "An Analysis of the Personality Traits of the Effective Teacher." *Journal of Educational Research* 40: 662-71; May 1947.
51. YOUNG, L. L. "Sociometric and Related Techniques for Appraising Social Status in an Elementary School." *Sociometry* 10: 168-77; May 1947.

CHAPTER VI

Mental and Physical Health and Safety in Industry

LYDIA G. GIBERSON

BELATEDLY, American industry is recognizing the necessity for a complete and rounded medical service, physical and mental. The tensions and exigencies of the war years have pointed up the need for attacking the medical problem at its point of greatest stress—industry. Extremely valuable work has been done during 1946-1949. The articles cited in this chapter represent about one-twentieth of those reviewed to obtain a cross-section of the general thinking in the industrial world by medical men, nurses, psychologists, and management people. Despite the large number of articles and books written during this period, the literature has lagged far behind industry's awareness of its responsibilities and the achievement it has made as a result. Particularly has this been true in the field of industrial mental hygiene. There is an abundance of material based on speculation and theory but a marked scarcity of contributions to the literature of factual experience in the field.

Mental Hygiene in Industry

The urgent need for wider application of the psychiatric methods already proved has become an accepted fact. The open-mindedness of industrial management toward this need was very well brought out by Dersheimer (13). He pointed out that it was very essential that the psychiatrist be willing to learn about industry and its problems, in order that his advice might be sound, suitable, and acceptable. Management's point of view was well presented in *Modern Industry* (33). The relationship of mental health and the environment was shown by Felix and Bowers' discussion (15) of "where we are" as regards our knowledge of socio-environmental factors and "where do we go from here" in future research and cooperation between medical and social sciences. Rennie and Woodward (40) in a practical way showed the direct result of social and environmental factors that attack the worker on the job and the need for an operable philosophy of work. Cohen and Ebaugh (10) discussed the function of the psychiatrist in industry based on conclusions from a survey of the literature relative to human, social, and psychological factors.

The value of physical health has long been understood. Slowly, industry has come to recognize the emotional factors associated with work. Novick (36) reviewed the work experiences of some persons in the industrial mental health field to prove his statements. Clarke and Law (9) reported their experiences in the all-important project at Oak Ridge, underlining the emotional element as a real problem in employment. Biernoff (4) gave a long and detailed account of the psychological dynamics of

traumatic neurosis. Schaller (45) discussed psychoneurotics in industry, with special reference to the effect of lump payment versus weekly stipend to workers in case of illness or injury. He believed the difficulty was not so much with the patients themselves as with the complicated handling of these cases—repeated examinations, hearings, and dissensions. Kay (25) discussed interpersonal relationships between nurses and patients with an excellent blueprint of emotional maturity which well applies to nurses in any environment. Corcoran (11) clearly showed that insight into the psychological basis of personal problems was as necessary a part of the individual nurse's equipment as was her knowledge of first aid or of evidences of infection.

During the war many counseling programs were set up. Some were directed by persons who were inadequate with respect to training or personality or both. Slowly, these poor programs have disappeared, and most counselors remaining in the field are well-trained individuals with a contribution to make to industry. Himler (24) discussed counseling technics and emphasized the importance of "skilled listening." Arbuckle (2) reported industrial nondirective counseling to be more advantageous than clinical nondirective counseling because of the more casual and intimate contact in the plant. Miller (32) felt that an industrial health educator needed to know the worker's environment and some of his habits. Counseling can then be expected to make a valuable contribution to management and labor.

Placement and Adjustments of Handicapped Persons

Immediately following the war years, the literature was flooded with material on rehabilitation. Of late, this has lessened somewhat. Rusk and Taylor (43) and Bridges (7) have written excellent textbooks. All are agreed that society has an undeniable responsibility toward the handicapped both from an economic and social point of view but Luongo (29) upheld management's hesitancy at times to hire workers not in perfect health. Bowman (5) discussed the mental side of the problems faced by handicapped persons.

Altho it is questionable that aging in industry should be counted as a handicap the attitude of many toward the older worker made such a subdivision necessary. Williams (49) and Stieglitz (47) gave both the credit and debit side of the ledger of aging.

Absenteeism

Felton (16) discussed phases of illness causing absenteeism and pointed up the social implications. Kossoris (27) was especially interested in the older workers. Among the best detailed studies of general absenteeism were those of Gafafer (20). However special studies by Newquist and Page (34) are worth reading. Raube (39) presented, from the personal

point of view, the reasons workers stay home but gave little analysis of the underlying causes. The real causes and stated causes are often far apart. Pennington (37) approached the problem from the point of view of uncovering the hidden cause. Fraser (19) reported a study showing that psychoneuroses were responsible for between one-quarter and one-third of all absences from work due to illness. Within the past three years, some industries have acknowledged alcoholism, a frequent cause of absenteeism, as a disease. Bacon (3), Maupin (31), and Norris (35) concluded that alcoholism not only makes a man unfit for this or that job but that it makes him unfit for any job. Alcoholics can, however, be rehabilitated in many instances. In fact, alcoholism is more susceptible to correction in industry than in the community at large. Studies from industrial psychology indicate that good working conditions are conducive to good work attendance. McQuitty (30) and Tiffin (48) determined that serious workers desire good working conditions, good bosses, and a chance for advancement far ahead of a particular pay level.

Human Relations in Industry

More and more attention is being paid today to the important problems of human relationships. *Fortune* (17) clearly showed that good human relations were not learned from books or made by laws but grew out of individual attitudes and mutual understanding. In concentrating on the attainment of technical skills, man has failed to develop successfully his social skills, especially his ability to work cooperatively with others. Management and labor are slowly learning that the price of good industrial relations is emotional reeducation. Roethlisberger (41) reviewed in detail five books from the management field and then defined human relations. Sachs (44), Raube (38), and Kronenberg (28) all felt that job satisfaction, social relations, and personal achievements were of more importance to workers than financial gain. Spates (46) expressed the belief that the desire of people at every level of organization is to be treated as human beings.

Safety

The literature is filled with material on accidents and the accident-prone individual. Many points of view are expressed, as is evidenced by the articles by Bresler (6), Dubois (14), and Kemp (26). Giberson (21) concluded that accidents are symptoms which indicate that something is wrong with the individual or his environment. Often there is an obscure emotional disturbance of which the individual himself may not be aware.

Health Programs

Health is now a major concern of both management and labor, and programs stimulated by both groups are expanding in size and increasing

in value all over the world. A good cross-section of this literature has been given by Anderson (1), Charron (8), Derryberry (12), Franklin (18), Harrison (22), Hess (23), Rubin (42), and Wittmer (50).

Bibliography*

1. ANDERSON, HARRY W. "General Motors Health Maintenance Program." *Industrial Medicine* 17: 61-64; February 1948.
2. ARBUCKLE, DOUGALD S. "Differences Between Clinical and Industrial Nondirective Counseling." *Personnel Journal* 26: 374-76; April 1948.
3. BACON, SELDON D. "Alcoholism in Industry." *Industrial Medicine* 17: 161-67; May 1948.
4. BIERNOFF, JOSEPH. "The Traumatic Neuroses of Industry." *Industrial Nursing* 5: 15-23; November 1946.
5. BOWMAN, KARL M. "The Mental Rehabilitation of the Worker." *Industrial Medicine* 15: 517-18; September 1946.
6. BRESLER, R. RALPH. "Medical Aspects of Industrial Safety." *Industrial Medicine* 16: 397-400; August 1947.
7. BRIDGES, CLARK D. *Job Placement of the Physically Handicapped*. New York: McGraw-Hill Book Co., 1946. 329 p.
8. CHARRON, KENNETH C. "Health Services for Industry." *Canadian Journal of Public Health* 39: 320-24; August 1948.
9. CLARKE, ERIC KENT, and LAW, STANLEY G. "Personality Components in Employment Problems." *Occupational Medicine* 2: 116-25; August 1946.
10. COHEN, R. ROBERT, and EBAUGH, FRANKLIN G. "Place of Psychiatry in the Industrial Team." *Occupational Medicine* 5: 522-29; May 1948.
11. CORCORAN, MARY E. "The Psychological Basis of Personal Problems of Workers." *Industrial Nursing* 7: 16-19; January 1948.
12. DERRYBERRY, O. MERTON. "Employee Health and Safety Program Developed in TVA." *Industrial Hygiene Newsletter* 8: 14-16; June 1948.
13. DERSHIMER, FREDERICK W. "Psychiatry in Industry." *The American Journal of Psychiatry* 103: 145-48; September 1946.
14. DUBOIS, EUGENE F. "Limits of Factors of Safety in the Human Body." *Mechanical Engineering* 68: 625-27; June 1946.
15. FELIX, ROBERT H., and BOWERS, RAYMOND V. "Mental Hygiene and Socio-Environmental Factors." *The Milbank Memorial Fund Quarterly* 26: 125-47; April 1948.
16. FELTON, JEAN SPENCER. "The Social Implications of Illness in Industry." *Journal of Social Casework* 30: 271-76; July 1949.
17. FORTUNE. "The Management of Men." *Fortune* 39: 104-109, 156-58, 160; February 1949.
18. FRANKLIN, DOUGLAS W. "Industrial Welfare in Sweden." *Industrial Welfare and Personnel Management* 31: 3-6; January-February 1949.
19. FRASER, RUSSELL. *The Incidence of Neurosis Among Factory Workers*. Industrial Health Research Board. Report No. 90. London: His Majesty's Stationery Office, 1947. 66 p.
20. GAFAFER, WILLIAM M. "Sick Absenteeism Among a Sample of Member Companies of Industrial Hygiene Foundation." *Health in Industry*. Industrial Hygiene Foundation, Bulletin No. 8. Pittsburgh: the Foundation (4400 Fifth Avenue), November 7, 1946. p. 100-11.
21. GIBERSON, LYDIA G. "Accidents Are Symptoms." *National Safety News* 56: 20-21, 56; September 1947.
22. HARRISON, HAROLD M. "Total Health in an Industrial Medical Service." *Industrial Health Review* 1: 7-10; January 1949.
23. HESS, GAYLORD R. "Basis of Approvals of Medical Services in Industry." *Industrial Medicine* 18: 295-97; July 1949.
24. HIMLER, LEONARD E. "Basic Principles and Techniques of Interviewing and Counseling." *Industrial Medicine* 16: 529-34; November 1947.
25. KAY, FRANK A. "Psychiatric Concepts Applied to Industrial Nursing." *Industrial Nursing* 7: 25-27; April 1948.

* The author wishes to acknowledge the assistance of Eleanor Fair in the preparation of this bibliography

26. KEMP, WILLIAM N. "The Mind Can Be Injured, Too." *National Safety News* 57: 34-35, 82; June 1948.
27. KOSSORIS, MAX D. "Absenteeism and Injury Experience of Older Workers." *Monthly Labor Review* 67: 16-19; July 1948.
28. KRONENBERG, MILTON H. "The Development of Improved Human Relations in Industry: The Caterpillar Program." *Industrial Medicine* 15: 480-81; August 1946.
29. LUONGO, E. PARKER. "Employment of Persons with Certain Physical and Neuro-psychiatric Impairments." *Occupational Medicine* 3: 1-12; January 1947.
30. MCQUITT, LOUIS L. "Psychologists in Industry." *Personnel Journal* 26: 178-83; November 1947.
31. MAUPIN, ROBERT E. "Conclusions from Fifty Years' Experience in the Treatment of Alcoholics." *Industrial Medicine* 17: 344-46; September 1948.
32. MILLER, MYRTLE. "The Nurse as Industrial Health Counselor." *Public Health Nursing* 40: 119-22, 127; March 1948.
33. MODERN INDUSTRY. "How Psychiatry Can Help Your Plant." *Modern Industry* 14: 54-64; October 15, 1947.
34. NEWQUIST, MELVIN N., and PAGE, ROBERT C. "Study of Absenteeism During a Five-month Period." *Industrial Medicine* 15: 676-77; December 1946.
35. NORRIS, JOHN L. "Cost and Remedy of the Alcoholic Hangover in Industry." *Industrial Medicine* 17: 129-32; April 1948.
36. NOVICK, RUDOLPH G. "Mental Hygiene and Industrial Health." *National Safety News* 56: 28-29, 78-79, 83-84; December 1947.
37. PENNINGTON, ALFRED W. "The Chronic Absentee." *Industrial Medicine* 18: 213-14; May 1949.
38. RAUBE, S. AVERY. *Factors Affecting Employee Morale*. Studies in Personnel Policy, No. 85. New York: National Industrial Conference Board, November 1947. 35 p.
39. RAUBE, S. AVERY. "Why Workers Stay Home." *The Conference Board Personnel Management Record* 10: 45-50; February 1948. (New York: National Industrial Conference Board.)
40. RENNIE, THOMAS A. C., and WOODWARD, LUTHER E. "Mental Hygiene in Industry." *Mental Health in Modern Society*. New York: Commonwealth Fund, 1948. Chapter 10, p. 271-307.
41. ROETHLISBERGER, FRITZ J. "Human Relations: Rare, Medium, or Well-Done?" *Harvard Business Review* 26: 89-107; January 1948.
42. RUBIN, HENRY H. "Industrial Health Program—For the Medium-Sized Plant." *Industrial Medicine* 17: 89-90; March 1948.
43. RUSK, HOWARD A., and TAYLOR, EUGENE J. *New Hope for the Handicapped*. New York: Harper and Brothers, 1949. 231 p.
44. SACHS, WALTER L. "Incentives in Industry." *Industrial Welfare and Personnel Management* 30: 37-39; March-April 1948.
45. SCHALLER, WALTER F. "Psychoneurosis and Industry." *Occupational Medicine* 2: 183-89; September 1946.
46. SPATES, THOMAS G. "Leadership and Human Relations at the Places Where People Work." *Advanced Management* 13: 98-102; September 1948.
47. STIEGLITZ, EDWARD J. "Age: Help or Hindrance." *Industrial Hygiene Newsletter* 9: 3, 16; May 1949.
48. TIFFIN, JOSEPH. "Attitudes and Morale." *Industrial Psychology*. New York: Prentice-Hall, 1947. Chapter 14, p. 455-81.
49. WILLIAMS, CLIFFORD LELAND. "The Mental Hygiene of Aging." *Geriatrics* 1: 361-68; September-October 1946.
50. WITTMER, JOHN J. "Health Is Big Business for Small Industries." *Industrial Medicine* 18: 146-48; April 1949.

CHAPTER VII

School Health Services

GEORGE M. WHEATLEY and THOMAS E. SHAFFER

THE ADDED impetus to child health conservation given by World War II has continued thru the period under examination and is reflected not only in specific research but also in important federal and state legislation, national surveys, conferences, and assemblies concerning the health of children. Because many of these activities, tho not research, have contributed significantly to progress in school health service, they are included in this review.

Administration

Because of pending legislation designed to provide federal aid for health services to school children, studies concerning the organization and administration of health services in schools have added importance. In the study of child health services made by the American Academy of Pediatrics (1), it was found that in 1946 only 3 percent of metropolitan counties were without some organized school medical services, while 68 percent of isolated rural counties did not have such service in a single school. Twenty-two percent of all children five to fifteen years of age were in these counties which lacked school medical services. On a country-wide basis the responsibility for furnishing school health services was found almost evenly divided between official education agencies (45 percent) and health agencies (41 percent). Most of the remainder were jointly administered by the two agencies. A definite tendency was found for education agencies to provide health services in metropolitan schools and for health departments to assume responsibility in rural areas. Education departments as a rule had more concern for testing vision and hearing than did the official health agencies. The complete report for the country as a whole (1) has been published and separate reports for many states are available.

Other studies of state and local administration of school health services (27, 49) showed a predominant pattern of administrative responsibility located in the education agencies, with a slight trend toward joint authority.

In a list of criteria for appraising federal school health legislation (5) stress was placed on joint planning by educational and health authorities at all levels and on cooperation in administering health services. Legislation introduced into the Eighty-First Congress provided for joint planning by state education and health agencies as a prerequisite to obtaining federal funds for school health. An example of this provision may be found in the *National School Health Services Bill* (54), passed by the Senate in April 1949.

While the value of adequate child health care is unchallenged, nevertheless, demonstration of its worth is useful. In a recent study of five large orphanages in North Carolina (11) emphasis was given to the low percentage of Selective Service rejections of individuals who grew up in these institutions as compared with the high percentage of rejections in the state as a whole. The point was made that the good pediatric care, periodic examinations, correction of remediable defects, and balanced diet which the orphans received were responsible for their health.

A small-scale evaluation of the Astoria plan of school health service (58), carried out in New York City, six years after the program was initiated, showed that the basic plan of teacher observation and referral for medical examination from teacher-nurse conferences had functioned satisfactorily. Few physical problems escaped detection, altho emotional disorders were not so effectively discovered. Studying the reasons for failure in follow-thru to correction after defects are found, Hardy (16) showed that parents' understanding of the significance of early remedial care and the availability of required professional service is all-important. The need for health education, particularly at the time of health examination was thus stressed once more. One suggestion for improving follow-thru by the next generation of parents was proposed in a description of a child health conference integrated thru the school medical service into a high-school curriculum, to increase understanding of child health among the teen-age students (48).

Gaps in school health services as generally conducted (7), ways for improving the quality of school health examination (57), and recommendations for increasing the cooperation of physicians in school health and physical education programs (4) have been discussed in a comprehensive manner.

Hood (17) described a noteworthy demonstration of school health service in a rural county. As in the Astoria plan, teachers and nurses conducted the screening examinations, but the children suspected of having health problems here were referred directly to their own doctor, who thus had a major role in the program.

Progress in Combating School Health Problems

Concurrent with the attention given to improved health services has been the remarkable improvement in mortality rate in the five- to fourteen-year-old age group. The Metropolitan Life Insurance Company (31) pointed out that between 1900 and 1946 the death rate in the United States among children five to fourteen years of age dropped from 3.9 to the low level of less than 0.9 per 1000. This decline was largely due to decreases in a relatively few leading causes of death (33).

In a summary of health progress and current needs of the school child, the desirability of shifting primary emphasis from communicable diseases of childhood to the more urgent demands of accident prevention, nutrition,

rheumatic fever, dental caries, and emotional disorders was stressed (34).

Rheumatic fever heads the list of diseases which cause death among children of school age. In a survey of 401 children in Grades V to VIII in Georgia, Quinn (42) found rheumatic fever in 2 percent of the children. Rheumatic fever has been described as a disease of urban surroundings, but Jackson (19) reported an incidence of 0.61 percent among children five to nineteen years of age in a rural county in Iowa. In a carefully planned survey and statistical analysis, Quinn, Watkins, and Quinn (43) found no statistically significant differences in the rates for rheumatic heart disease among rural, semirural, and urban children. The rate in crowded homes, irrespective of rural or urban location, was almost twice that found where crowding did not exist, which difference was statistically significant.

A special report of the Committee on School Health and the Committee on Rheumatic Fever of the American Academy of Pediatrics (2) emphasized referral of children with vague signs of rheumatism by teachers and nurses for medical review.

The reasons for absenteeism furnish a relatively valid index of the health status of school children. An important study of the problem has been conducted in Canadian schools (35). It was found that rural children were absent less often for medical reasons than were urban children, but they lost more days for nonmedical causes, chiefly inclement weather and work demands at home. There was more absence per pupil in the urban group and a longer average time per absence. As might be expected, upper respiratory infections were responsible for about 50 percent of the absences for medical reasons.

Vision and hearing conservation are basic to a school health program because these handicaps are quite common, have subtle onset, and place severe penalty on a child's progress in school. An evaluation of various vision-testing procedures currently employed in schools (*Snellen, Massachusetts Vision Test*, and *Keystone Telebinocular*) was reported (47). The value of the *Snellen Test*, carefully conducted with controlled illumination, was reaffirmed when 89 percent of the children shown by refraction to be in need of eye examination were detected by this test.

The pitfalls as well as the rewards in a community hearing conservation program were admirably described by Willard and Proctor (56). The program was conducted in a county of 68,000 population under the auspices of the health department. The authors pointed out that such a plan succeeds best within an adequate public health program and is seriously handicapped without nursing and school health services, medical-social work, and clinics for consultation and for general medical or health supervision.

The hearing conservation program in California was also described (8). In this report and the previous one, the need for participation of many community agencies in promotion of child health was stressed.

The most prevalent health problem of children of school age is dental

caries (31). A good example of the increasing tendency for professional groups to assist in the school health movement is a manual prepared by the Council on Dental Health of the American Dental Association (3).

In a study of Iowa City children Boyd and Cheyne (10) found that caries was almost universal as was its tendency to progress. Much attention has been directed in recent years to developing procedures which might reduce the occurrence of caries. The most promising of these is repeated topical application of 2 percent sodium fluoride to children's teeth. Jordon and his co-workers (21) studied the effect of various numbers of applications of sodium fluoride and concluded that good results are proportional to the number of treatments. At least four applications in a series are needed.

The accepted doctrine that malnutrition predisposes to dental caries has been shaken by two studies (12, 25) in which children with proved nutritional deficiencies had less than half as large an average increment of caries as a group of well-nourished children. The authors were unable to explain these results by present knowledge about caries.

Immunizations and advances in public health practices have made infectious diseases less important in school health services than they once were, but the "nuisance diseases" will always be a problem for schools. Kaiser (22) described a method for treating pediculosis by two applications of a DDT preparation at a seven-day interval. The results were completely satisfactory and absenteeism from this cause was reduced to one day.

Ringworm of the scalp has been a problem in most cities. Several reports which aid in understanding this condition appeared. Rothman and Smiljanic (45) found there is an explanation for the well-known observation that ringworm of the scalp clears up spontaneously during adolescence and that adults are immune. From hair of adult humans they were able to isolate ether-extractable fatty acids which inhibit the growth of the causative fungus. Schwartz and associates (46) reported good results for the treatment of ringworm of the scalp during an epidemic in Hagerstown, Maryland.

Tuberculosis is an infectious disease for which control measures can be applied in the schools. There is controversy over the proper way to carry it out, some workers advocating routine chest X-rays without tuberculin testing and others recommending tuberculin tests to identify the infected group in which X-ray examinations should be given. Jordan (20) presented evidence to support this latter plan.

In spite of immunizations, epidemics of contagious diseases still occur in schools. Rodman, Bradford, and Berry (44) investigated an extensive outbreak of whooping cough in a suburban school where 50 percent of the susceptible children eventually contracted the disease. The incidence of the disease in previously immunized children was slightly reduced.

In a report of a committee of the National Tuberculosis Association (39), detailed consideration was given to children who need adjustment of their educational programs because of some special health problem.

Tuberculosis, rheumatic fever, nutrition, epilepsy, and diabetes are among the various conditions selected for discussion.

Safety Education and Problems Relating to Accident Proneness

The fact that accidents have moved to first place as a cause of death among children of school age was revealed by reports of insurance experience (30, 34). Motor vehicles and drowning are the two leading causes of accidents for boys five to nineteen years of age and for girls ten to nineteen. Among girls five to nine years of age, burns are second to motor vehicles. Analysis of these data brought forth suggestions for improving the situation (32).

In industry it has long been known that certain individuals tend to have more accidents than others and they have been labelled as "accident-prone." One of the few studies of this trait in children was made by Fuller (14), who found that children who suffer injury frequently tend also to have more problems than those who rarely get hurt. There seems to be no evidence that injury proneness can be identified with undesirable traits in children. Rather it appears that a combination of circumstances are predisposing factors in the injury-prone child.

School Environment

The health of school children is so much influenced by environmental conditions in and around the school that supervision of school hygiene falls within the scope of school health services.

Sturkie (51) drew attention to the limited scope of the usual health department supervision of school sanitation and described how he assembled standards and devised a rating scale for a complete sanitary survey of schools.

Gallagher's study (15) of sickness among users and nonusers of a chlorinated swimming pool is useful for schools where pupils use such a facility. He concluded that over a seven-year period there was only a slightly higher incidence of respiratory disease among the users than among the nonusers.

Tinker (53) challenged the tendency of lighting engineers to set progressively higher standards for illumination. He stated that on psychological and physiological grounds an illumination of fifteen foot-candles is sufficient for ordinary classroom work, while double this amount would meet requirements for more exacting tasks.

An authoritative statement on the status of air sanitation (6) emphasized that general use of ultraviolet irradiation or disinfectant (glycol) vapors in schools is not justified until further research has been accomplished. One such research project (40) carried out in three centralized rural schools indicated that ultraviolet lights in the classrooms did modify the spread of measles. The authors did not recommend installation of ultraviolet lights in classrooms on the basis of this study, however.

Growth and Development

The Wetzel Grid (55) has become widely known as a device for demonstrating growth and development by means of two measurements, stature and weight. Leeson, McHenry, and Mosley (23) found that the Grid method was not consistent in detecting deviations in nutritional status when compared with clinical appraisal by a physician. However, in a two-year study of growth and physical condition of malnourished children compared with a control group free from nutritional deficiency diseases, Mann, Dreizen, and Spies (24) reported that Wetzel Grid findings paralleled medical and dietary observations. On the grid, the test group showed uneven progress and retarded schedule of growth. However, some of the control group exhibited the same changes, attributed by the authors as probably due to infections. In a group of children in nutritive failure as probably due to infections. In a group of children in nutritive failure the grid has been compared (26) with the Red Graph method (41) for identifying stages of bone development. Developmental age on the grid and skeletal age were seldom identical, but when used together the composite picture of growth and maturation was better than with either alone. The Red Graph is an amplification of the Todd method of assessing skeletal age from inspection of wrist X-rays and promises to contribute greater understanding about the symmetry of skeletal growth than has heretofore been available.

Meredith and Stuart (29, 50) criticized the use of height and weight determinations alone as measures of growth and development and proposed a series of measurements to include body weight, standing height, hip width, chest circumference, leg girth, and subjective ratings of the thickness of folds of skin and subcutaneous tissue in two areas of the body. A "Physical Growth Record" calling only for height and weight measurements for use in schools where it is not considered practicable to make other measurements has recently been described by Meredith (28).

Developments in this field of interpreting body measurements reflect universal appreciation of the need for simple, reliable appraisals of growth and development which would identify children in need of health appraisal and counseling.

A number of studies (9, 13, 52) have demonstrated close relationship between socio-emotional maladjustment and failure to grow. The exact mechanisms which are responsible have not been shown, but attitudes in the home which deny emotional security and tranquility are undoubtedly of prime importance.

Cooperative Activities for Improvement of School Health Services

Advances in school health depend to a large degree upon interprofessional cooperation. Mention has been made (3, 39) of the contributions of one professional group and one voluntary health agency in this regard. The Joint Committee on Health Problems in Education (38) has prepared

a manual on standards for the health appraisal of school children. The National Committee for School Health Research in Canada, sponsored by the Canadian Education Association and the Canadian Public Health Association, has issued three significant reports (35, 36, 37) pertaining to a survey of existing conditions in Canadian schools, mental hygiene problems, and absenteeism. Most of these problems are not limited by national boundaries, so the past and future reports of this Committee should find application in the United States as well as in Canada.

Summary

In summary, the accent of these studies is on understanding and providing for the health needs of school children. Conquest of the communicable diseases of childhood has shifted the emphasis to accident prevention, health education, and environmental conditions which favor the development of optimum health. In achieving improvement in school health services, the past three years has witnessed an increasing appreciation by all the professional groups concerned with the necessity of working out plans together and of the contributions the physician, the nurse, the dentist, and the educator can make to the development of a dynamic program.

Bibliography

1. AMERICAN ACADEMY OF PEDIATRICS. *Child Health Services and Pediatric Education*. New York: Commonwealth Fund, 1949. 270 p.
2. AMERICAN ACADEMY OF PEDIATRICS. "Rheumatic Fever and the School Child." Special Report of Committee on School Health and Committee on Rheumatic Fever. *Pediatrics* 2: 321-23; September 1948.
3. AMERICAN DENTAL ASSOCIATION, COUNCIL ON DENTAL HEALTH. *Dental Health Program for Elementary and Secondary Schools*. Chicago: the Association, 1947. 40 p.
4. AMERICAN MEDICAL ASSOCIATION. *Physicians and Schools*. Report of Conference on the Cooperation of the Physician in the School Health and Physical Education Program, October 1947. Chicago: the Association, 1948. 32 p.
5. AMERICAN PUBLIC HEALTH ASSOCIATION. "Principles for Consideration in Judging the Probable Effectiveness of Federal Legislation Designed To Improve the Health of Children of School Age." Statement from School Health Section. *American Journal of Public Health* 38: 560-62; April 1948.
6. AMERICAN PUBLIC HEALTH ASSOCIATION. Subcommittee for the Evaluation of Methods To Control Air-borne Infections. "The Present Status of the Control of Air-borne Infections." *American Journal of Public Health* 37: 13-22; January 1947.
7. BAUMGARTNER, LEONA; WEGMAN, MYRON E.; and WHEATLEY, GEORGE M. "Medical, Dental, and Nursing Services for School Children." *Yale Journal of Biology and Medicine* 19: 651-59; March 1947.
8. BIERMAN, JESSIE M., and CAZIARC, DONALD R. "The California Hearing Conservation Program." *American Journal of Public Health* 37: 407-11; April 1947.
9. BINNING, GRIFFITH. "Peace Be on Thy House." *Health* 15: 6, 7, 28, 30; March-April 1948. (Toronto: Health League of Canada.)
10. BOYD, JULIAN D., and CHEYNE, VIRGIL D. "Epidemiologic Studies in Dental Caries: Part I, The Pattern of Dental Caries in Iowa City Children." *Journal of Pediatrics* 29: 157-76; August 1946.

11. DAVIS, WILLIAM H., and ARENA, JAY M. "The Importance of Pediatric and Surgical Care in the Prevention of Selective Service Rejections." *Journal of Pediatrics* 33: 85-89; July 1948.
12. DREIZEN, SAMUEL, and OTHERS. "Prevalence of Dental Caries in Malnourished Children." *American Journal of Diseases of Children* 74: 265-73; September 1947.
13. FRIED, RALPH, and MAYER, MORRIS F. "Socio-Economic Factors Accounting for Growth Failure in Children Living in an Institution." *Journal of Pediatrics* 33: 444-56; October 1948.
14. FULLER, ELIZABETH M. "Injury-Prone Children." *American Journal of Orthopsychiatry* 18: 708-23; October 1948.
15. GALLAGHER, J. ROSWELL. "Swimming Pools: Their Relation to Illness." *New England Journal of Medicine* 238: 899-903; June 24, 1948.
16. HARDY, MARTHA C. "Follow-Up of Medical Recommendations." *Journal of American Medical Association* 136: 20-27; January 3, 1948.
17. HOOD, THOMAS R. "A School Health Demonstration Based on Sound Public Health Practices." *American Journal of Public Health* 39: 649-53; May 1949.
18. HUBBARD, JOHN P.; BAIN, KATHERINE; and PENNELL, MARYLAND Y. "School Health Services." *American Journal of Public Health* 39: 781-86; June 1949.
19. JACKSON, ROBERT L. "Heart Diseases in Children in a Rural Iowa County; Particularly in Relation to Rheumatic Fever." *Journal of Pediatrics* 29: 647-50; November 1946.
20. JORDAN, LEWIS S. "Results of Fifteen Years of Tuberculosis Control in Rural Minnesota." *Journal of School Health* 17: 68-73; March 1947.
21. JORDON, WILLIAM A., and OTHERS. "The Effects of Various Numbers of Topical Applications of Sodium Fluoride." *Journal of the American Dental Association* 33: 1385-91; November 1, 1946.
22. KAISER, ALBERT D. "Treatment of Pediculus Capitis in School Children with DDT Powder." *American Journal of Public Health* 36: 1133-34; October 1946.
23. LEESON, HELEN J.; MCHENRY, EARLE W.; and MOSLEY, WILLIAM. "The Value of the Wetzel Grid in the Examination of School Children." *Canadian Journal of Public Health* 38: 491-95; October 1947.
24. MANN, ARVIN W.; DREIZEN, SAMUEL; and SPIES, TOM D. "The Determination of Status and Progress in Children with Nutritive Failure." *Journal of Pediatrics* 31: 161-71; August 1947.
25. MANN, ARVIN W., and others. "A Comparison of Dental Caries Activity in Malnourished and Well-Nourished Patients." *Journal of American Dental Association* 34: 244-52; February 15, 1947.
26. MANN, ARVIN W., and OTHERS. "The Red Graph and the Wetzel Grid as Methods of Determining the Symmetry of Status and Progress During Growth." *Journal of Pediatrics* 32: 137-50; February 1948.
27. MAXWELL, CYRUS H. "Administration of School Health Services." *Journal of School Health* 18: 177-83; September 1948.
28. MEREDITH, HOWARD V. "A 'Physical Growth Record' for Use in Elementary and High Schools." *American Journal of Public Health* 39: 878-85; July 1949.
29. MEREDITH, HOWARD V., and STUART, HAROLD C. "Use of Body Measurements in the School Health Program, Part III." *American Journal of Public Health* 37: 1435-38; November 1947.
30. METROPOLITAN LIFE INSURANCE COMPANY. "Accidents—Chief Killer of School Children." *Statistical Bulletin* 27: 6-8; September 1946.
31. METROPOLITAN LIFE INSURANCE COMPANY. "Health Problems of School-age Children." *Statistical Bulletin* 28: 3-6; May 1947.
32. METROPOLITAN LIFE INSURANCE COMPANY. "The Human Touch in Safety Education." *Health Bulletin for Teachers* 19: 21-24; September 1948.
33. METROPOLITAN LIFE INSURANCE COMPANY. "Life Has Become Much Safer for Children." *Statistical Bulletin* 28: 4-6; March 1947.
34. METROPOLITAN LIFE INSURANCE COMPANY. *The School Child: Health Progress and Needs*. New York: the Company, 1947. 12 p.
35. NATIONAL COMMITTEE FOR SCHOOL HEALTH RESEARCH. *Absenteeism in Canadian Schools*. Report No. 3. Toronto: the Committee (Director: A. J. Phillips, 206 Huron Street), 1948. 156 p.
36. NATIONAL COMMITTEE FOR SCHOOL HEALTH RESEARCH. *A Health Survey of Canadian Schools*. Report No. 1. Toronto: the Committee (Director: A. J. Phillips, 206 Huron Street), 1947. 90 p.

37. NATIONAL COMMITTEE FOR SCHOOL HEALTH RESEARCH. *Some Data on Mental Health Problems in Canadian Schools*. Report No. 2. Ottawa: Canadian Education Association, 1948. 80 p.
38. NATIONAL EDUCATION ASSOCIATION AND THE AMERICAN MEDICAL ASSOCIATION, Joint Committee on Health Problems in Education. *Health Appraisal of School Children*. Chicago: American Medical Association, 1948. 29 p.
39. NATIONAL TUBERCULOSIS ASSOCIATION. *Children with Special Health Problems*. Report of the Committee on Educational Adaptations for Children with Special Health Problems. New York: the Association, 1948. 24 p.
40. PERKINS, JAMES E.; BAHLE, ANNE M.; and SILVERMAN, HILDA F. "Effect of Ultraviolet Irradiation of Classrooms on Spread of Measles in Large Rural Central Schools. A Preliminary Report." *American Journal of Public Health* 37: 529-37; May 1947.
41. PYLE, S. IDELL, and OTHERS. "A Substitute for Skeletal Age (Todd) for Clinical Use: The Red Graph Method." *Journal of Pediatrics* 32: 125-36; February 1948.
42. QUINN, ROBERT W. "The Incidence of Rheumatic Fever and Heart Disease in School Children in Dublin, Georgia, with Some Epidemiological and Sociological Observations." *American Heart Journal* 32: 234-42; August 1946.
43. QUINN, ROBERT W.; WATKINS, JOHN H.; and QUINN, JULIA P. "Rheumatic Heart Disease and Crowding: A Survey of Rural and Urban Connecticut School Children." *American Journal of Public Health* 38: 1071-81; August 1948.
44. RODMAN, ANNE C.; BRADFORD, WILLIAM L.; and BERRY, GEORGE P. "An Epidemiological Study of an Outbreak of Pertussis in a Public School." *American Journal of Public Health* 36: 1156-62; October 1946.
45. ROTHMAN, STEPHEN, and SMILJANIC, ADELAIDE M. "Mechanism of Spontaneous Cure in Puberty of Ringworm of the Scalp." *Science* 104: 201-203; August 30, 1946.
46. SCHWARTZ, LOUIS, and OTHERS. "Control of Ringworm of the Scalp Among School Children in Hagerstown, Maryland." *Journal of the American Medical Association* 132: 58-62; September 14, 1946.
47. SHAFFER, THOMAS E. "Study of Vision Testing Procedures." *American Journal of Public Health* 38: 1141-46; August 1948.
48. SHAFFER, THOMAS E. "Use of Child-Health Conference for Teaching Health and Child Care in High School." *Journal of School Health* 19: 155-59; June 1949.
49. STAFFORD, FRANK S. *State Administration of School Health, Physical Education, and Recreation*. U. S. Office of Education, Federal Security Agency, Bulletin 1947, No. 13. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1947. 33 p.
50. STUART, HAROLD C., and MEREDITH, HOWARD V. "Use of Body Measurements in the School Health Program, Parts I and II." *American Journal of Public Health* 36: 1365-86; December 1946.
51. STURKIE, SAMUEL D. "Increasing the Scope of School Sanitation Services in Local Department of Health Programs." *American Journal of Public Health* 38: 997-1002; July 1948.
52. TALBOT, NATHAN B., and OTHERS. "Dwarfism in Healthy Children: Its Possible Relation to Emotional, Nutritional, and Endocrine Disturbances." *New England Journal of Medicine* 236: 783-93; May 22, 1947. (Boston: Massachusetts Medical Society.)
53. TINKER, MILES A. "Illumination Standards." *American Journal of Public Health* 36: 963-73; September 1946.
54. U. S. 81ST CONGRESS, 1st Session. S1411: *National School Health Services Bill*. Washington, D. C.: Senate Committee on Labor and Public Welfare, 1949. 13 p.
55. WETZEL, NORMAN C. *The Treatment of Growth Failure in Children*. Cleveland: NEA Service (1200 West Third Street), 1948. 102 p.
56. WILLARD, WILLIAM R., and PROCTOR, DONALD F. "Results and Problems after Four Years of a Conservation of Hearing Program." *American Journal of Public Health* 38: 1424-33; October 1948.
57. WILSON, CHARLES C. "The School Health Examination." *Journal of School Health* 17: 243-48; November 1947.
58. YANKAUER, ALFRED, JR. "An Evaluation of the Effectiveness of the Astoria Plan for Medical Service in Two New York City Elementary Schools." *American Journal of Public Health* 37: 853-59; July 1947.

CHAPTER VIII

Health Education

MABEL E. RUGEN

HEALTH education is concerned primarily with the processes by which individuals and groups are taught to understand and voluntarily apply the principles and facts that will enable them to attain complete physical, mental, and social well-being. This process is difficult to define as was evidenced in a recent symposium (2). The appearance of ten new health education references since 1946, all of which express points of view concerning the nature and purposes of health education may be taken as an indication of the current emphasis on clarification of the basic concepts and objectives of health education and of their realization in practice. Of these references the one by the Joint Committee on Health Problems of the American Medical Association and the National Education Association (3) seems to have presented the best available consensus of informed opinion in the field of health education.

National and international interest in improving the health of all people stressed the importance of education, too. This is recognized in the Constitution of the World Health Organization, which asserts that the attainment of the objectives for improved health of all the people is dependent upon an informed and educated public. Some agreement, locally, nationally, and internationally, of basic concepts and objectives for health education, therefore, is important.

International and National Developments

The World Health Organization has been proclaimed as "the greatest achievement in the history of international public health" (53). The acceptance by the governments of fifty-four nations of the right of every human being to the highest attainable standard of health is without parallel in world history. Education was described as an activation of the individual and the key to world health. The World Health Organization was described by Parran and Bondreau as the cornerstone of peace (43) and by Eliot (15) as a significant evidence of success in attaining international cooperation.

Health education programs grow out of the health needs of people. Events since the war have served to focus attention on basic economic and sociological factors. Mendenhall (32) related health to living standards and economics and presented data intended for the health education of adolescents or adults. National health and the attainment of health education objectives were shown to be dependent in a large measure upon income. Discussions of recent federal legislation like the *Hospital Survey*

and Construction Act by Johnson and Spinney (25) and the *National Mental Health Act* by Felix (17) contained important health education content. Likewise the reports of the National Health Assembly (39) and the Ewing report, *The Nation's Health*, (16) have provided a stimulus for extensive public education. Still another educational effort was the conference on local health units initiated by the American Public Health Association (4), in which fifty-nine lay and professional groups participated.

Administrative Planning for School-Community Programs

The trend toward closer school-community-health-department planning in matters of health has continued. Cooperative arrangements between state departments of health and education were presented in a recent government publication (58). The use of joint committees and councils at the level of the state, the local community, and the individual school for more effective planning was reviewed by Rugen (52), who stressed the need of defining and improving the process of joint planning. Integrating the school health education activities with those of the community was advocated as a basic policy by the American School Health Association (6).

Many descriptive accounts of cooperative plans appeared in the literature but little attention was given to their evaluation. In Rochester, Minnesota, a cooperative health program for children has been in operation since 1943 (63). The Kansas School Health Demonstration described by Hood (23) was planned for a five-year period. Fourteen states in the Southern States Work Conference were reported as participating in a cooperative plan to improve the school health program (57). The development of school-community programs has been accompanied in some instances by the addition of a health coordinator to the school staff. Such was the case in Los Angeles. Sellery (56) outlined the duties and functions of the coordinator based on the California experience.

Cooperative planning has also been carried on among community agencies for the development of better health education programs for adults. Schober (55) described the place of the Council of Social Agencies in helping the public to know their community agencies. Reynolds and Morgan (50) reviewed the development of health education efforts and activities in North Carolina from 1877 to 1947. Bradley (10) presented an historical survey of health education in the schools of West Virginia.

The Health Council has been advocated as an effective health education tool. Marquette (30) summarized the experience of thirty-one cities with health councils and presented the factors related to their success. Yolande (67) defined the "steppingstones" to council formation.

The analysis and evaluation of the experiences of groups have been important empirical bases for the improvement of practice in health education. Long-term demonstrations and experiments have been few. Rugen (51) discussed this situation in reviewing significant projects and studies

for the period, 1920-1948, and pointed out that during the decade, 1920-1930, a number of pioneer demonstrations of three to four years duration were carried on and from 1930 to 1940 a few longer-term studies of an experimental nature were conducted. In more recent years, however, some of the consistent direction which characterized the earlier efforts has been missing. Rugen concluded that generalizations for administrative planning for better health programs in schools may be derived from the results of some of these studies. Ten such generalizations are stated.

Health was described as a "shortage area" by the Horace Mann-Lincoln Institute of School Experimentation (62) in a report of progress in four school systems. A committee of the North Central Association (40) outlined a plan of action based on a study of recommendations and principles of health education for administrative use in appraisal and planning.

Selection of Content for Health Teaching

One basis for the selection of health teaching content for particular age or cultural groups is the mortality and morbidity statistics of these groups. A dozen "big problems," based on vital statistics, were stated by the Joint Committee on Health Problems in Education (3) as essential in the health education of teachers and children. Particular topics emphasized in the past three-year period included: safety, alcohol, dental health, social hygiene, and human relations. MacLaurin (29) summarized the driver training situation for adolescents and concluded that in fifty years we had done little to solve the traffic accident problem. King (26) outlined an experimental plan for accident research in an issue of *Public Health Reports* which provided basic data for a safety education program (48).

Better teacher guidance in the selection and presentation of content in alcohol education was urged by Hirsch (22) after a thoro study of available materials. The American Dental Association defined objectives and proposed teaching content for children and youths (36).

Perhaps the most discussed topics in this area are social hygiene, human relations, family living, and understanding self. All of these have been included in the area of study frequently designated as personal health and human relationships. Beister and others (8) prepared for teachers a comprehensive reference book of source units based on experimental teaching from the kindergarten thru the senior high school. "Education for Family Living" is the title of the March 1949 issue of the *Journal of Educational Sociology* (28). Descriptive accounts of successful practice in Oregon, New Jersey, Utah, California, and New York were presented. The White House Conference on Family Life also gave impetus to instruction in this area (64). In Delaware (11) emphasis was placed on the mental hygiene approach to human relations. Ojemann (41) found that the study of people—what they are like and how they behave—by junior-high-school students affected their approach to social problems. He concluded that

the junior-high-school level was an appropriate time to begin the more formal study of human behavior.

Present status of public understanding of a given topic provides another basis for the selection of content. Metzner and Campbell (34) applied survey research methods to a study of public information on cancer and the effectiveness of the cancer campaigns. Responses of those interviewed revealed a need for better cancer education. Schiffers (54) determined the symptomatology ("danger signals") which laymen should know about principal causes of death on the assumption that greater understanding of the principal causes of death, their symptoms, significance, and means of prevention would reduce mortality and increase longevity.

Motivation and Interests

The number of studies concerned with ways of motivating children or adults to apply principles of healthful living was quite limited during this period. Strang (61) presented some data based on reactions of children. Mead (31) stressed the importance of establishing and interpreting relationships between desirable health practices and goals to be achieved as basic to motivating changes in behavior.

Perhaps the most comprehensive study of health interests of children was that conducted by the Denver Public Schools (12). This was a part of a curriculum study to provide a valid basis for the selection of learning experiences to be included in a health instruction program for the kindergarten thru the twelfth grade. Data were obtained by use of the interview and checklist inventory with parents, teachers, and children. Eighteen different areas of health generally recommended by textbooks indicated the scope of subjectmatter. The items of greatest and least interest for each of the grades were analyzed. These were then organized into a master chart and related to the developmental characteristics and health needs of each age level. The materials thus compiled have considerable value as suggestions for curriculum revision.

Relating the health instruction to the interests and concerns of children was further supported by Pflieger (47), who discovered that one out of four or five eighth-grade Detroit students indicated specific problems in the areas of health and physical development and boy and girl relations. His conclusions supported those of Strang in stressing the need for the utilization of counseling and guidance technics in determining the selection of experiences for health teaching.

Effective Methods of Teaching

Research in the area of changing food habits based on some of the earlier investigations of Lewin and others continued. Radke and Klisurich (49) compared three methods of changing eating behavior: the lecture, individual instruction, and group decision with a group of mothers. A

feature of this study was to determine the permanance of the behavior after a lapse of two to four weeks following the instruction. It was discovered that the behavior of those mothers who were instructed by the group decision method showed the greatest improvement.

Whitehead (65) conducted a project in which children participated in the appraisal of their own food habits and interpreted their conclusions to their parents and other adults. This procedure resulted in considerable improvement in eating practices for both the children and their parents. An investigation of how children spend their nickles and dimes was reported by Meredith (33). It was found that 60 percent of the white children and 80 percent of the Negro children spent money for luxury "snacks" each day and that there was a close relationship between the lack of milk and fruit in the diet and the amount of money spent for "snacks."

A report of the eating habits of 14,000 children (20) based on the record of food eaten during a three-day period indicated that there was greater improvement in diet among children whose teachers attended a workshop and received direct inservice training in nutrition and health education than among children whose teachers were given only printed materials to read. There has been much speculation regarding the relationship between nutrition and learning.

Several studies dealing with the effectiveness of the newspaper, radio, and similar media for the distribution of health education information have been reported. Billings (9) related his experience with the use of a comic book as a means of transmitting information on venereal disease to individuals with limited educational background. Freeble and Robinson (18) reported favorable results, measured in terms of increased case finding, from a series of twenty-five articles based on real histories of venereal disease cases appearing in a tabloid newspaper. In an attempt to compare the relative effectiveness of various means of communication for presenting information to parents about school health programs, Hein (21) utilized printed bulletins, radio programs, newspaper advertisements, window exhibits, health "shorts" in commercial theaters, and parent questionnaires. He concluded that the bulletin and parent questionnaire were the most effective means of presenting the health information and indicated that some changes in the health behavior of children of these parents was observable.

Professional Education

Three significant reports dealing with aspects of professional education in health education have appeared since 1946. The first of these deals with college health programs (37) and contains a summary of the deliberations and recommendations of working committees representing many colleges, universities, and health agencies. A portion of this report is devoted to teacher education. The National Conference on Undergraduate Professional Preparation in Health Education, Physical Education, and

Recreation (38) concentrated on the improved training of classroom teachers and specialists in the respective areas. There is an increased demand for community health educators. Educational qualifications to meet defined functions were proposed by the American Public Health Association (5).

Health education and hygiene instruction in the college traditionally has been under the direction of the college health service. DeWeese (13) reported a decrease in the number of college physicians continuing this responsibility and an increase in the number of nonmedical health educators assuming these instructional responsibilities.

Steinhaus (60) reported methods used at George Williams College to make teacher-education experiences in health more functional. Each student works with a group of individuals and attempts to improve health behavior. Eastabrooks and Lundy (14) reported a plan for providing work experience with health departments as inservice preparation for school health coordinators. The workshop has been accepted in this area as a useful educational tool for the inservice education of school personnel. Paley and Lottridge (42) described the participation of prospective teachers at Fresno State College in health appraisal conferences with parents and teachers. In the inservice education field Stafford and Kilander (59) reported the results of two workshops, which include suggested standards for the professional health education of the teacher.

An evaluation of the effectiveness of the workshop procedure in terms of improved eating practices of children was published by General Mills (19). Witty (66) pointed out the importance of mental health traits in teacher personality and in the creation of a hygienic classroom. The evaluation of teacher traits was based on judgments of 12,000 children.

Evaluation

Few studies on the evaluation of health programs at either the school or community level have appeared. The Michigan Department of Public Instruction presented an evaluation of an experimental health education program in secondary schools (35) in which a number of different appraisal measures were used. Leonard (27) described the plan for evaluation of health education in state teachers colleges in California while Patty, in a series of articles (44, 45, 46), suggested application of evaluative measures for health education based on experience with schools. Beard (7) presented usable criteria for the evaluation of health education materials. A committee report of the American Association for Health, Physical Education, and Recreation suggested adequate program standards (1).

Summary

Research in the area of health education has continued to emphasize descriptive studies. Discussions on world interest in better organization

for education and health have been outstanding. An increase in the number of studies relating to the improvement of teaching methods and their evaluation in terms of better health practices was evidenced. There continues to be a real need for the better definition of health education problems for research and the methods that may best be employed in their intensive study.

Bibliography

1. AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION. *Adequate Standards for a Public School Health and Physical Education Program*. Committee Report. Washington, D. C.: the Association, a department of the National Education Association, 1946. 8 p.
2. AMERICAN JOURNAL OF PUBLIC HEALTH. "What is Health Education? A Symposium." *American Journal of Public Health* 37: 641-52; June 1947.
3. AMERICAN MEDICAL ASSOCIATION AND NATIONAL EDUCATION ASSOCIATION, Joint Committee on Health Problems in Education. *Health Education*. Fourth Edition. Washington, D. C.: National Education Association, 1948. 413 p.
4. AMERICAN PUBLIC HEALTH ASSOCIATION, Committee on Administrative Practice, Subcommittee on Local Health Units. *Proceedings of the National Conference on Local Health Units, Princeton University, September 1947*. New York: American Public Health Association, 1947. 95 p.
5. AMERICAN PUBLIC HEALTH ASSOCIATION, Committee on Professional Education. "Proposed Report on the Educational Qualifications of Community Health Educators." *American Journal of Public Health* 38: 843-50; June 1948.
6. AMERICAN SCHOOL HEALTH ASSOCIATION. "Integration of Community Health Education and School Health Education." Committee Report. *Journal of School Health* 12: 20; January 1947.
7. BEARD, KAY. "Evaluation of Health Education Materials." *Canadian Journal of Public Health* 39: 440-46; November 1948. (Toronto: Canadian Public Health Association.)
8. BEISTER, LILLIAN L., and OTHERS. *Units in Personal and Human Relations*. Minneapolis: University of Minnesota Press, 1947. 267 p.
9. BILLINGS, TERRANCE. "Venereal Disease Education." *Journal of Venereal Disease Information* 28: 162-66; August 1947.
10. BRADLEY, GLADYCE. "The History of School Health and Education in West Virginia, 1863-1945." *Research Quarterly* 18: 144-52; May 1947. Washington, D. C.: American Association for Health, Physical Education, and Recreation, a department of the National Education Association.
11. BULLIS, H. EDMUND, and O'MALLEY, EMILY E. *Human Relations in the Classroom*. Wilmington, Delaware: Hambleton Co., 1947. 222 p.
12. DENVER PUBLIC SCHOOLS. *Health Interests of Children*. Denver, Colo.: Board of Education, 1947. 121 p.
13. DEWEESE, ARVILLE OTIS. "Some Trends in Health Instruction as Related to the Student Health Service." *Journal of School Health* 19: 27-33; February 1949.
14. EASTABROOKS, MARJORIE, and LUNDY, HOWARD. "Health Department Experience for School Health Coordinators in Washington." *American Journal of Public Health* 38: 982-85; July 1948.
15. ELIOT, MARTHA. "United Action for World Health." *Survey Graphic* 37: 394-96, 407-408; September 1948.
16. EWING, OSCAR R. *The Nation's Health*. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1948. 186 p.
17. FELIX, ROBERT H. "The Fight for Mental Health: The Battle Is Joined." *Survey Midmonthly* 83: 235-38; September 1947.
18. FREEBLE, CHARLES R., Sr., and ROBINSON, ARTHUR. "The Tabloid Newspaper as a Medium of Mass Public Venereal Disease Education." *Journal of Venereal Disease Information* 29: 307-12; October 1948.

19. GENERAL MILLS, DEPARTMENT OF PUBLIC SERVICE, EDUCATION SECTION. *A Nutrition Education Workshop Pays Dividends*. Minneapolis: General Mills, 1948. 30 p.
20. GENERAL MILLS, PROGRAM OF ASSISTANCE TO SCHOOLS IN NUTRITION AND HEALTH EDUCATION. *How Well Fed Are Our Children?* A Report of the Eating Habits of 14,000 Children. Minneapolis: General Mills, 1948. 15 p. (Mimeo.)
21. HEIN, FRED V. "Study of Some Means of Presenting Information to Parents About the School Health Program." *Journal of Experimental Education* 15: 304-13; June 1947.
22. HIRSCH, JOSEPH. "Alcohol Education—Its Needs and Challenges." *American Journal of Public Health* 37: 1574-77; December 1947.
23. HOOD, THOMAS R. "A School Health Demonstration Based on Sound Public Health Practices." *American Journal of Public Health* 39: 649-53; May 1949.
24. HYDE, H. VAN ZILE. "Education and World Health." *Progressive Education* 26: 129-31; March 1949.
25. JOHNSON, ALICE MILLER, and SPINNEY, RACHEL E. "Health Educators and the Hospital Program." *High School Journal* 30: 141-43; May 1947.
26. KING, BARRY GRIFFITH. "Accident Prevention Research." *Public Health Reports* 64: 373-82; March 25, 1949.
27. LEONARD, MARGARET L. "Evaluation of Programs in Health Education." *California Journal of Secondary Education* 23: 89-92; February 1948.
28. LESHER, MABEL GRIER, and ROBBINS, SAMUEL TUBBE, editors. "Education for Family Living." *Journal of Educational Sociology* 22: 429-90; March 1949.
29. MACLAURIN, EVELYN. "Teach Them To Drive." *Survey Graphic* 37: 397-99; September 1948.
30. MARQUETTE, BLEEKER. "Health Councils in Local Communities." *American Journal of Public Health* 37: 959-66; August 1947.
31. MEAD, MARGARET. "Positive Motivations in Health Education." *Motivation in Health Education*. 1947 Health Education Conference of the New York Academy of Medicine. New York: Columbia University Press, 1948. p. 45-53.
32. MENDENHALL, JAMES F. "Health and Living Standards." *Progressive Education* 26: 132-36; March 1949.
33. MEREDITH, ALLA P. "Nickels and Dimes and the School Child's Diet." *Journal of School Health* 18: 255-58; December 1948.
34. METZNER, CHARLES A., and CAMPBELL, ANGUS, directors. *The American Public Discuss Cancer and The American Cancer Society Campaign*. Ann Arbor: University of Michigan, Survey Research Center, December 1948. 92 p. (Mimeo.)
35. MICHIGAN DEPARTMENT OF PUBLIC INSTRUCTION. *Michigan Community Health Service Project: An Evaluation and Interpretation*. Bulletin No. 409. Lansing: the Department, 1946. 40 p.
36. MORREY, LON W. "Dental Health for Children and Youth." *Journal of School Health* 17: 82-83; March 1947.
37. NATIONAL CONFERENCE ON HEALTH IN COLLEGES. *A Health Program for Colleges*. New York: National Tuberculosis Association, 1948. 152 p.
38. NATIONAL CONFERENCE ON UNDERGRADUATE PROFESSIONAL PREPARATION IN HEALTH EDUCATION, PHYSICAL EDUCATION, AND RECREATION. *National Conference; Jackson's Mill, Weston, West Virginia, May 16-27, 1948*. Chicago: The Athletic Institute (209 South State Street), 1948. 40 p.
39. NATIONAL HEALTH ASSEMBLY. *America's Health: A Report to the Nation*. New York: Harper and Brothers, 1949. 395 p.
40. NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS, COMMITTEE ON FUNDAMENTALS, SUBCOMMITTEE ON PHYSICAL FITNESS. "Developing the Health Education Program." *North Central Association Quarterly* 21: 304-41; January 1947.
41. OJEMANN, RALPH. "The Effect on the Child's Development of Changes in Cultural Influences." *Journal of Educational Research* 40: 258-70; December 1946.
42. PALEY, RUTH, and LOTTRIDGE, DOROTHY. "An Experiment in Teacher Training." *Public Health Nursing* 39: 194-95, 198; April 1947.
43. PARRAN, THOMAS, and BONDREAU, FRANK G. "The World Health Organization: Cornerstone of Peace." *American Journal of Public Health* 36: 1265-72; November 1946.
44. PATTY, WILLARD W. "Diagnostic Values to Pupils of Health Education Tests." *Journal of School Health* 19: 97-104; April 1949.

45. PATTY, WILLARD W. "Evaluating Health Education Outcomes." *Journal of School Health* 19: 37-40; February 1949.
46. PATTY, WILLARD W. "Uses for Health Education Tests." *Journal of School Health* 19: 58-63; March 1949.
47. PFLIEGER, ELMER. "Pupil Adjustment Problems and a Study of Relationships Between Scores on the California Test of Personality and the Mooney Problem Checklist." *Journal of Educational Research* 41: 265-78; December 1947.
48. PUBLIC HEALTH REPORTS. "Accident Prevention." *Public Health Reports* 64: 355-89; March 25, 1949.
49. RADKE, MARIAN, and KLISURICH, DAYNA. "Experiments in Changing Food Habits." *Journal of the American Dietetic Association* 23: 403-409; May 1947.
50. REYNOLDS, CARL V., and MORGAN, LUCY. "North Carolina Moves Toward Health Education for All the People." *High School Journal* 30: 118-20, 147; May 1947.
51. RUGEN, MABEL E. "Better Health Through Schools: Recent Projects and Research." *Administration of Schools for Better Living*. Proceedings of the Co-operative Conference for Administrative Officers of Public and Private Schools, Vol 11. Chicago: University of Chicago Press, 1948. Chapter 6, p. 48-62.
52. RUGEN, MABEL E. "Working Together for Better Health Education." *Journal of Educational Sociology* 22: 51-59; September 1948.
53. SAND, RENE. "The World Health Organization." *Survey Graphic* 35: 352-53; October 1946.
54. SCHIFFERS, JUSTUS J. *A Method of Study in Health Education*. New York: Health Council, 1949. 32 p.
55. SCHOBER, DOROTHY. "Community Approaches to Health Education." *Public Health Nursing* 40: 519-20; October 1948.
56. SELLERY, C. MORLEY. "Duties and Functions of the School Health Coordinator at the Secondary Level." *Journal of School Health* 16: 282-86; December 1946.
57. SOUTHERN STATES WORK CONFERENCE ON EDUCATIONAL PROBLEMS, COMMITTEE ON THE SCHOOL HEALTH PROGRAM. *Improving the School Health Program in the Southern Region*. Tallahassee: State Department of Education, 1949. 65 p.
58. STAFFORD, FRANK S. *State Administration of School Health, Physical Education and Recreation*. U. S. Office of Education, Federal Security Agency, Bulletin 1947, No. 13. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1947. 33 p.
59. STAFFORD, FRANK S., and KILANDER, HOLGER F. *Teacher Education for the Improvement of School Health Programs*. U. S. Office of Education, Federal Security Agency, Bulletin 1948, No. 16. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1948. 38 p.
60. STEINHAUS, ARTHUR. "Adventures in Health Education." *Journal of School Health* 18: 103-107; April 1948.
61. STRANG, RUTH. "Motivations in Health Education." *Public Health Nursing* 40: 11-14; January 1948.
62. TEACHERS COLLEGE, COLUMBIA UNIVERSITY, HORACE MANN-LINCOLN SCHOOL, INSTITUTE OF SCHOOL EXPERIMENTATION. "Shortage Areas in Curriculum Experimentation: Progress Report of Horace Mann-Lincoln Institute of School Experimentation." *Teachers College Record* 49: 347-56; February 1948.
63. THOMAS, MAURICE J. "Unifying Health Services Through Public Education." *Public Health Nursing* 40: 168-73; April 1948.
64. WHITE HOUSE CONFERENCE ON FAMILY LIFE. *Health in the Preschool and School Years*. New York: National Conference on Family Life, 1948. 15 p. (Mimeo.)
65. WHITEHEAD, FLOY EUGENIA. *Appraising Food Habits: An Evaluative Device with Suggested Procedures for Classroom Teachers*. Baton Rouge: Louisiana State University, College of Education, Bureau of Educational Materials, Statistics, and Research, 1948. 36 p.
66. WITTY, PAUL. "An Analysis of the Personality Traits of the Effective Teacher." *Journal of Educational Research* 40: 662-72; May 1947.
67. YOLANDE, LYON. *Steppingstones to a Health Council*. New York: National Health Council, 1947. 28 p.

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

MEMBERSHIP¹

Active Members pages 436 thru 455; Associate Members page 456.

ACTIVE MEMBERS

- Abelson, Harold H.**, Professor of Education, The City College of New York, Convent Avenue and 139th Street, New York 31, New York.
- Adams, Mrs. Georgia Sachs**, Research Coordinator, Pasadena City Schools, Pasadena, California.
- Adell, James C.**, Chief, Bureau of Educational Research, Cleveland Public Schools, Cleveland, Ohio.
- Adell, Mrs. Marian Young**, Director of Reading Clinic, Cleveland Heights Public Schools, Cleveland Heights, Ohio.
- Alschuler, Mrs. Rose H.**, Box 754, Tempe, Arizona.
- Ammons, Robert B.**, Assistant Professor, Psychology Department, Tulane University, New Orleans, Louisiana.
- Andersen, Christian T.**, Assistant Secretary, Board of Education, 1354 Broadway, Detroit 26, Michigan.
- Anderson, Earl W.**, Professor of Education, Ohio State University, Columbus 10, Ohio.
- Anderson, G. Lester**, Dean of Teacher Education, College of the City of New York, 695 Park Avenue, New York 21, New York.
- Anderson, Harold H.**, Professor of Psychology, Michigan State College, East Lansing, Michigan.
- Anderson, Howard R.**, Chief, Instructional Problems, Division of Secondary Education, U. S. Office of Education, Washington 25, D. C.
- Anderson, Vernon E.**, Associate Professor of Education, University of Connecticut, Storrs, Connecticut.
- Andrus, Ruth**, Chief, Bureau of Child Development and Parent Education, New York State Education Department, Albany, New York.
- Angell, George W.**, Dean of Faculty, State Teachers College, New Paltz, New York.
- Angell, John H.**, Dean, Eureka College, Eureka, Illinois.
- Arbuckle, Dugald S.**, Director of Student Personnel, School of Education, Boston University, Boston, Massachusetts.
- Archer, Clifford P.**, Director, Bureau of Recommendations, College of Education, University of Minnesota, Minneapolis, Minnesota.
- Armstrong, Charles M.**, Associate Statistician, New York State Education Department, Albany, New York.
- Arnesen, Arthur E.**, Director of Research and Supervisor of Mathematics, 440 East First South Street, Salt Lake City 2, Utah.
- Army, Mrs. Clara Brown**, Professor of Home Economics Education, University Farm, St. Paul, Minnesota.
- Aronow, Mrs. Miriam S.**, Research Assistant, Bureau of Educational Research, New York City Board of Education, 110 Livingston Street, Brooklyn 2, New York.
- Ashbaugh, E. J.**, Dean, School of Education, Miami University, Oxford, Ohio. (Secretary-Treasurer of the AERA, 1918-22; President, 1924-25.)
- Baer, Joseph A.**, Chief, Bureau of Research and Planning, Connecticut State Department of Education, Hartford, Connecticut.
- Baker, H. Leigh**, Head, Department of Education and Psychology, Kansas State College, Manhattan, Kansas.
- Baker, Harry J.**, Divisional Director, Psychological Clinic, Detroit Public Schools, 453 Stimson Avenue, Detroit 1, Michigan.
- Barnett, Albert**, Professor of Education and Psychology, Texas Technological College, Lubbock, Texas.
- Barr, Arvil S.**, Professor of Education, University of Wisconsin, Madison, Wisconsin.
- Barr, W. Monfort**, Assistant Professor of Education, Fort Wayne Center, Indiana University, Fort Wayne, Indiana.
- Barry, Robert F.**, Consultant in Research and Testing, Board of Education, Rochester, New York.

¹ Corrected to January 1, 1950. Report errors immediately to the secretary-treasurer.

- Bartels, Martin H.**, Supervisor of Curriculum Development, Cincinnati Public Schools, 216 East Ninth Street, Cincinnati 2, Ohio.
- Barth, Rev. Pius J.**, OFM, Chairman, Department of Education, De Paul University, Chicago, Illinois.
- Bayley, Nancy**, Research Associate, Institute of Child Welfare, Berkeley, California.
- Beach, C. Kenneth**, Professor of Industrial Education, School of Industrial and Labor Relations, Cornell University, Ithaca, New York.
- Becholdt, Burley V.**, Director of Research, Indiana State Teachers Association, 200 Hotel Lincoln, Indianapolis, Indiana.
- Beck, Hubert Park**, Assistant Professor of Education, The City College of New York, 1560 Amsterdam Avenue, New York 31, New York.
- Beck, Roland L.**, Professor of Education, Grand Canyon College, Box 67, Prescott, Arizona.
- Bedell, Ralph C.**, Professor of Educational Psychology and Measurements, University of Nebraska, Lincoln 8, Nebraska.
- Beecher, Dwight E.**, Research Associate, New York State Education Department, Albany, New York.
- Beery, John R.**, Dean, School of Education, University of Miami, Coral Gables 46, Florida.
- Behrens, Herman D.**, Chairman, Department of Education, State Teachers College, Geneseo, New York.
- Bell, Hugh M.**, Professor of Psychology, Chico State College, Chico, California.
- Bennett, Margaret E.**, Consulting Psychologist, Pasadena City College, 1570 East Colorado Street, Pasadena 4, California.
- Benz, Harry E.**, Professor of Education, Ohio University, Athens, Ohio.
- Bergman, W. G.**, Director, Department of Instructional Research, Board of Education, Detroit 26, Michigan.
- Betts, Emmett A.**, Professor and Director, The Reading Clinic, Temple University, Philadelphia 22, Pennsylvania.
- Betts, Gilbert L.**, Editor, Educational Test Bureau, Minneapolis, Minnesota.
- Biggy, M. Virginia**, Director of Child Adjustment, Concord Public Schools, Concord, Massachusetts.
- Billett, Roy O.**, Professor of Education, School of Education, Boston University, Boston, Massachusetts.
- Billig, Albert L.**, Instructor of Mathematics, Allentown High School, Allentown, Pennsylvania.
- Bills, Mark W.**, Superintendent of Schools, Flint, Michigan.
- Birmingham, Sister Digna**, OSB, Professor of Educational Psychology and Director of Faculty Studies, College of St. Scholastica, Duluth 2, Minnesota.
- Birren, James E.**, Research Psychologist, Gerontology Section, National Institute of Health, U. S. Public Health Service, Baltimore City Hospital, Baltimore 24, Maryland.
- Bixler, Harold H.**, Director of Research and Guidance, Board of Education, City Hall, Atlanta, Georgia.
- Bixler, Roy W.**, Registrar, Drake University, 5638 Waterbury Road, Des Moines 12, Iowa.
- Blaha, M. Jay**, Coordinator of Secondary Education, Los Angeles County Schools, 808 North Spring Street, Los Angeles 12, California.
- Blair, Glenn M.**, Professor of Educational Psychology, University of Illinois, Urbana, Illinois.
- Blanchard, B. Everard**, Educational Adviser, United States Air Force, Ernest Harmon Air Force Base, 1226th Air Base Group, NBC-MATS, APO 864, Box 45, % Postmaster, New York, New York.
- Blommers, Paul**, Associate Professor, College of Education, State University of Iowa, Iowa City, Iowa.
- Boardman, Charles W.**, Professor of Education, University of Minnesota, Minneapolis, Minnesota.
- Bond, Guy L.**, Professor of Education, University of Minnesota, Minneapolis, Minnesota.
- Booker, Ivan A.**, Assistant Director, Research Division, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C.
- Bossing, Nelson L.**, Professor of Education, College of Education, University of Minnesota, Minneapolis, Minnesota.

- Bowman, Mrs. Lillie Lewin**, Director, Bureau of Research, San Francisco Unified School District, 950 Franklin Street, San Francisco 9, California.
- Bowyer, Vernon**, Director of Adult Education, Board of Education, Chicago, Illinois.
- Boyer, Philip A.**, Associate Superintendent of Schools, Board of Education, Twenty-First and Parkway, Philadelphia 3, Pennsylvania. (President of AERA, 1935-36.)
- Bragg, Mrs. Emma White**, 613 Cypress Street, Daytona Beach, Florida.
- Breed, Frederick S.**, Associate Professor Emeritus of Education, University of Chicago, Dune Acres, Chesterton, Indiana.
- Bridges, Claude F.**, Assistant Director, Division of Test Research and Service, World Book Company, Yonkers 5, New York.
- Brink, William G.**, Professor of Education, School of Education, Northwestern University, Evanston, Illinois.
- Bristow, William H.**, Director, Bureau of Curriculum, New York City Board of Education, 110 Livingston Street, Brooklyn 2, New York.
- Britt, Steuart Henderson**, Director of Personnel, McCann-Erickson, Inc., 50 Rockefeller Plaza, New York 20, New York.
- Broening, Angela M.**, Assistant Director of Research, Baltimore Public Schools, Baltimore, Maryland.
- Broom, M. E.**, Professor, Department of Optometry, Southern College of Optometry, 865 Washington Avenue, Memphis 7, Tennessee.
- Brown, Edwin J.**, Dean, University College, St. Louis University, 15 North Grand Avenue, St. Louis, Missouri.
- Brownell, Samuel Miller**, Professor of Educational Administration, Yale University, and President, New Haven State Teachers College, New Haven, Connecticut.
- Brownell, William A.**, Professor of Educational Psychology, School of Education, Northwestern University, Evanston, Illinois. (President of AERA, 1938-39.)
- Brueckner, Leo J.**, Professor of Education, University of Minnesota, Minneapolis, Minnesota.
- Brumbaugh, A. J.**, Vicepresident, American Council on Education, 744 Jackson Place, N. W., Washington 6, D. C.
- * **Buckingham, B. R.**, Editor, Ginn and Company, Boston, Massachusetts. (President of AERA, 1918-20.)
- Buckton, LaVerne**, Coordinator of Testing, Brooklyn College, Bedford Avenue and Avenue H, Brooklyn 10, New York.
- Burke, Arvid J.**, Director of Studies, New York State Teachers Association, Albany, New York.
- Buros, Oscar K.**, Director, Institute of Mental Measurements, School of Education, Rutgers University, New Brunswick, New Jersey.
- Burr, Samuel Engle, Jr.**, Chairman, Department of Education, American University, Washington, D. C.
- Buswell, G. T.**, Professor of Educational Psychology, University of California, Berkeley 4, California.
- Butterworth, Julian E.**, Professor of Rural Education (Educational Administration), Cornell University, Ithaca, New York.
- Cain, Leo F.**, Professor of Education, and Director of Special Education, San Francisco State College, San Francisco, California.
- Caliver, Ambrose**, Specialist for Higher Education of Negroes and Adviser on Related Problems, U. S. Office of Education, Washington 25, D. C.
- Campbell, Donald W.**, Director, Department of Reference and Research, Board of Education, Newark 2, New Jersey.
- Carli, A. Ralph**, Associate Director, Laboratory of Psychological Studies, Stevens Institute of Technology, 501 River Street, Hoboken, New Jersey.
- Carpenter, W. W.**, Professor of Education, University of Missouri, Columbia, Missouri (on leave). Civil Information and Education, General Headquarters, Supreme Command of Allied Powers, APO 500, % Postmaster, San Francisco, California.
- ** **Carr, William G.**, Associate Secretary, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C. (Secretary-Treasurer of AERA, 1932-40.)
- Carroll, Herbert A.**, Professor of Psychology, Department of Psychology, University of New Hampshire, Durham, New Hampshire.

* Honorary member.

** Life member.

- Carter, Harold D.**, Associate Professor of Education, University of California, Berkeley, California.
- Caswell, Hollis L.**, Dean, Teachers College, Columbia University, New York 27, New York.
- Cattell, Psyche**, Practicing Psychologist, Director of the Cattell School, 314 North West End Avenue, Lancaster, Pennsylvania.
- Chadderdon, Hester**, Professor of Home Economics Education, Iowa State College, Ames, Iowa.
- Chamberlain, Leo M.**, Vicepresident, University of Kentucky, Lexington, Kentucky.
- Chambers, M. M.**, Director, Foreign Universities Project of the American Council on Education, 744 Jackson Place, Washington 6, D. C.
- Chapman, A. L.**, Professor of Educational Administration, University of Texas, Austin, Texas.
- Chapman, Harold B.**, Assistant Director of Research, Baltimore Public Schools, Baltimore, Maryland.
- † **Charters, W. W.**, Maple City, Michigan. (President of AERA, 1930-31; Member, Board of Editors, *Encyclopedia of Educational Research*, revised edition.)
- Chase, Vernon E.**, Consultant, Educational and Administrative Surveys, Orchard Heights, Montague, Michigan.
- Chase, W. Linwood**, Professor of Education, School of Education, Boston University, Boston, Massachusetts.
- Chisholm, Leslie L.**, Professor of School Administration, University of Nebraska, Lincoln, Nebraska.
- Clark, Willis W.**, Director of Research and Technical Services, California Test Bureau, 5916 Hollywood Boulevard, Los Angeles 28, California.
- Clark, Zenas R.**, Administrative Assistant, Wilmington Public Schools, Wilmington, Delaware.
- Coleman, Floyd B. T.**, Research Assistant, Division of Housing and Administration, Board of Education, Brooklyn, New York.
- Conley, William H.**, Chairman, Department of Education, Loyola University, 820 North Michigan Avenue, Chicago 11, Illinois.
- Conrad, Herbert S.**, Chief, Research and Statistical Service, U. S. Office of Education, Federal Security Agency, Washington 25, D. C.
- Cook, Mrs. Elaine Forsyth**, 25 East Palmer, Detroit 2, Michigan.
- Cook, Lloyd A.**, Professor of Educational Sociology and Chairman, Department of Educational Sociology, Wayne University, Detroit, Michigan.
- Cook, Owen J.**, Director, Business Research and Guidance, County Office of Education, Modesto, California.
- Cook, Walter W.**, Professor of Education, University of Minnesota, Minneapolis, Minnesota.
- Cooke, Dennis H.**, President, High Point College, High Point, North Carolina.
- Coon, Beulah I.**, Agent for Studies and Research in Home Economics Education, U. S. Office of Education, Washington 25, D. C.
- Cooper, Dan H.**, Associate Professor of Education, School of Education, State University of Iowa, Iowa City, Iowa.
- Cooper, Joseph B.**, Associate Professor of Psychology, San Jose State College, San Jose, California.
- Cooper, Lewis B.**, Associate Professor of Education and Psychology, Texas Technological College, Lubbock, Texas.
- Cooper, Shirley**, Assistant Secretary, American Association of School Administrators, 1201 Sixteenth Street, N. W., Washington 6, D. C.
- Corey, Stephen M.**, Executive Officer, Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University, New York 27, New York.
- Cornell, Ethel L.**, Associate Education Supervisor (Research), New York State Education Department, Albany, New York.
- Cornell, Francis G.**, Director, Bureau of Research and Service, College of Education, University of Illinois, Urbana, Illinois.
- Courtis, Stuart A.** (Retired), 9110 Dwight Avenue, Detroit 14, Michigan. Professor Emeritus of Education, University of Michigan, Ann Arbor, Michigan. (President of AERA, 1917-18.)

- Cowen, Philip A.**, Acting Associate Coordinator of Research, State Education Department, Albany, New York.
- Coxe, Warren W.**, Director, Division of Research, State Education Department, Albany, New York.
- Coy, Genevieve L.**, Psychologist, Dalton School, New York, New York.
- Craig, Gerald S.**, Professor of Natural Sciences, Teachers College, Columbia University, New York, New York.
- Cronbach, Lee J.**, Associate Professor of Education, Bureau of Research and Service, University of Illinois, 1007 South Wright Street, Champaign, Illinois.
- Cunliffe, Rex B.**, Professor of Education, Rutgers University, New Brunswick, New Jersey.
- Cunningham, K. S.**, Director, Australian Council for Educational Research, Melbourne, Australia.
- Cureton, Edward E.**, Professor of Psychology, University of Tennessee, Knoxville, Tennessee.
- Cutts, Norma E.**, Professor of Psychology and Education, New Haven State Teachers College, and Lecturer in Educational Psychology, Yale Department of Education, New Haven, Connecticut.
- Dale, Edgar**, Professor of Education, School of Education, Ohio State University, Columbus, Ohio.
- Darley, John G.**, Assistant Dean and Professor of Psychology, Graduate School, University of Minnesota, Minneapolis, Minnesota.
- Davis, Frederick B.**, Professor of Education and Director, Educational Clinic, Hunter College, 695 Park Avenue, New York 21, New York.
- Davis, Hazel**, Assistant Director, Research Division, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C.
- Davis, Robert A.**, Professor of Psychology, George Peabody College for Teachers, Nashville 4, Tennessee.
- Dawson, Howard A.**, Director of Rural Service, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C.
- Desing, Minerva F.**, Route 1, Woodstown, New Jersey.
- Detchen, Lily**, Director of Evaluation Services, Pennsylvania College for Women, Woodland Road, Pittsburgh 6, Pennsylvania.
- DeVoss, James C.**, Dean of Professional Education, San Jose State College, San Jose, California.
- Dimond, Stanley E.**, Divisional Director, Department of Social Studies, Detroit Public Schools, 467 West Hancock, Detroit 1, Michigan.
- Dolch, Edward W.**, Professor of Education, University of Illinois, Urbana, Illinois.
- Donohue, Francis J.**, Head, Department of Education, Villanova College, Villanova, Pennsylvania.
- Douglass, Harl R.**, Director, College of Education, University of Colorado, Boulder, Colorado.
- Downs, Martha** (Retired), Head of Mathematics Department and Director of Research, New Jersey State Teachers College, Newark, New Jersey.
- Dreese, Mitchell**, Professor of Educational Psychology, George Washington University, Washington, D. C.
- Dressel, Paul L.**, Chairman, Board of Examiners and Director, Counseling Center, Michigan State College, East Lansing, Michigan.
- Driver, Robert L.**, House Officer, Hospital of the University of Pennsylvania, Philadelphia 4, Pennsylvania.
- Durflinger, Glenn W.**, Associate Professor of Education, Santa Barbara College, University of California, Santa Barbara, California.
- Durost, Walter N.**, Associate Professor of Education, School of Education, Boston University, 84 Exeter Street, Boston, Massachusetts.
- Durrell, Donald D.**, Dean and Professor of Education, School of Education, Boston University, Boston 16, Massachusetts.
- Eads, Mrs. Laura K.**, Research Assistant, Bureau of Curriculum, Board of Education of the City of New York, 110 Livingston Street, Brooklyn 2, New York.
- Eames, Thomas H.**, Lecturer on Education, School of Education, Boston University, Boston, Massachusetts.
- Easley, Howard**, Associate Professor of Educational Psychology, Duke University, Durham, North Carolina.

- Eaton, Merrill T.**, Professor of Education, Indiana University, Bloomington, Indiana.
- Ebel, Robert L.**, Director, University Examinations Service, State University of Iowa, 114 University Hall, Iowa City, Iowa.
- Eckert, Ruth E.**, Professor of Higher Education and Coordinator of Educational Research, University of Minnesota, Minneapolis, Minnesota.
- Edmiston, Robert W.**, Director of Extension and Practical Arts Division, Miami University, Oxford, Ohio.
- Edwards, Newton**, Professor of Education, University of Chicago, Chicago, Illinois. (President of AERA, 1943-44.)
- Ehrlich, Gerald**, Assistant Professor, Department of Hygiene, The City College of New York, 138th Street and Convent Avenue, New York 31, New York.
- Ellingson, Mark**, President, Rochester Institute of Technology, Rochester, New York.
- Elliott, Eugene B.**, President, Michigan State Normal College, Ypsilanti, Michigan.
- Ellis, Albert**, Chief Psychologist, The Diagnostic Center, Menlo Park, New Jersey.
- Ellis, G. Gordon**, Associate Professor of Education, School of Education, University of North Carolina, Chapel Hill, North Carolina.
- Engelhardt, Nickolaus L.**, School Planning Consultant, 331 West 250th Street, New York 63, New York.
- Engelhardt, N. L., Jr.**, Educational Consultant, 59 Park Avenue, New York 16, New York.
- Engelhart, Max D.**, Director, Department of Examinations, Chicago City Junior College, Chicago 21, Illinois.
- Espenshade, Anna**, Associate Professor of Physical Education, University of California, Berkeley, California.
- Eurich, Alvin C.**, President, State University of New York, Albany 1, New York. (President of AERA, 1945-46.)
- Evenden, Edward S.**, Professor of Education and Executive Officer of Advanced School of Education, Teachers College, Columbia University, New York 27, New York.
- Fattu, Nicholas A.**, Associate Professor of Educational Psychology, Indiana University, Bloomington, Indiana.
- Feder, D. D.**, Dean of Students, University of Denver, Denver, Colorado.
- Fehr, Howard Franklin**, Professor of Mathematics, Teachers College, Columbia University, New York 27, New York.
- Feifel, Herman**, Research Psychologist, Personnel Research Section, Adjutant General's Office, Washington 25, D. C.
- Finch, Frank H.**, Professor of Education, University of Illinois, Urbana, Illinois.
- Findley, Warren G.**, Director of Test Development, Educational Testing Service, 20 Nassau Street, Princeton, New Jersey.
- Fitzgerald, James A.**, Professor of Education, Fordham University, New York 7, New York.
- Flanagan, John C.**, Professor of Psychology, Department of Psychology, University of Pittsburgh, Pittsburgh, Pennsylvania.
- Fleck, Henrietta C.**, Chairman, Home Economics Department, New York University, New York, New York.
- Flemming, Mrs. Cecile White**, Psychologist, Division for Sales Personnel Selection, Burton Bigelow Organization, 274 Madison Avenue, New York 16, New York.
- Flesher, William R.**, Research Associate and Professor of Education, Ohio State University, Columbus, Ohio.
- Foote, John M.**, 1853 Blouin Avenue, Baton Rouge, Louisiana.
- Foster, Richard R.**, Director of Research, Dayton Public Schools, Dayton, Ohio.
- Fowlkes, John G.**, Dean, School of Education and Director of Summer Session, University of Wisconsin, Education Engineering Building, Madison 6, Wisconsin.
- Fox, William H.**, Assistant Professor of Education, School of Education, Indiana University, Bloomington, Indiana.
- Frederick, O. I.**, Director of Research Division, Western Michigan College of Education, Kalamazoo, Michigan.
- * **Freeman, Frank N.** (Retired), Dean, School of Education, University of California, Berkeley, California. (Secretary-Treasurer of AERA, 1922-23, Chairman, Editorial Board, REVIEW OF EDUCATIONAL RESEARCH, 1931-37.)

- Friedman, Bertha Beryl**, Assistant Professor of Education, Queens College, Flushing, New York.
- Friswold, I. O.**, Director, Division of Buildings and Business Administration, Minnesota State Department of Education, St. Paul 1, Minnesota.
- Fritch, C. Lorene**, Statistician, Glendale Unified School District, Glendale, California.
- Fritz, Ralph A.**, Director of Library Education, State Teachers College, Kutztown, Pennsylvania.
- Froehlich, Gustav J.**, Assistant Director, Bureau of Institutional Research, University of Illinois, Urbana, Illinois.
- Frutchey, Fred P.**, Educational Analyst, Division of Field Studies and Training, Extension Service, U. S. Department of Agriculture, Washington 25, D. C.
- Fults, Carol Anna**, Professor and Head, Teacher Education in Home Economics, Florida State University, Tallahassee, Florida.
- Furst, Edward J.**, Acting Chief, Evaluation and Examinations Division, Bureau of Psychological Services, University of Michigan, 110 Rackham Building, Ann Arbor, Michigan.
- Gage, N. L.**, Assistant Professor, College of Education, University of Illinois, Urbana, Illinois.
- Gallup, Gladys**, Assistant Chief, Division of Field Studies and Training, Extension Service, U. S. Department of Agriculture, Washington 25, D. C.
- Garrison, Karl C.**, Associate Professor of Educational Psychology, College of Education, University of Georgia, 497 Springdale Street, Athens, Georgia.
- Gastwirth, Paul**, Principal, Public School Four, Long Island City, Queens, New York.
- Gates, Arthur I.**, Professor of Education, Teachers College, Columbia University, New York, New York. (President of AERA, 1942-43.)
- Gavian, Mrs. Ruth Wood**, Assistant Professor of Education, Department of Education, Brooklyn College, Brooklyn 10, New York.
- Gerberich, J. Raymond**, Director, Bureau of Educational Research and Service, University of Connecticut, Storrs, Connecticut.
- Gex, R. Stanley**, Assistant Professor of Education, Teachers College, University of Cincinnati, Cincinnati 21, Ohio.
- Gilbert, Arthur W.**, Director, Department of Research and Curriculum, Public Schools, Kansas City, Missouri.
- Goldthorpe, J. Harold**, Specialist in the Exchange of Teachers, Division of International Educational Relations, U. S. Office of Education, Washington 25, D. C.
- Good, Carter V.**, Dean, University of Cincinnati, Teachers College, Cincinnati, Ohio. (President of AERA, 1940-41; Member, Board of Editors, *Encyclopedia of Educational Research*, revised edition.)
- Goodykoontz, Bess**, Assistant Commissioner of Education, U. S. Office of Education, Washington, D. C. (President of AERA, 1939-40.)
- Gordon, Hans C.**, Special Assistant to the Director, Division of Educational Research, Board of Education, Philadelphia, Pennsylvania.
- Grant, Albert**, Supervisor of Tests, Cincinnati Public Schools, Cincinnati, Ohio.
- Gray, William S.**, Professor of Education, Department of Education, University of Chicago, Chicago 37, Illinois. (Secretary-Treasurer of AERA, 1929-32; President, 1932-33.)
- Greene, Harry A.**, Professor of Education, State University of Iowa, Iowa City, Iowa. (Secretary-Treasurer of AERA, 1923-26; President, 1936-37; Member, Board of Editors, *Encyclopedia of Educational Research*, revised edition; Chairman, Editorial Board, REVIEW OF EDUCATIONAL RESEARCH, 1948-51.)
- Greene, James E.**, Professor of Education, University of Georgia, Peabody Hall, Athens, Georgia.
- Greene, Mrs. Katharine B.**, Lecturer, School of Education, University of Michigan, Ann Arbor, Michigan.
- Greenleaf, Walter J.**, Specialist in Occupational Information and Guidance, U. S. Office of Education, Washington 25, D. C.
- Grieder, Calvin**, Professor of Education, University of Colorado, Boulder, Colorado.
- Grizzell, E. Duncan**, Dean, School of Education, University of Pennsylvania, Philadelphia 4, Pennsylvania.
- Grossnickle, Foster E.**, Professor of Mathematics, State Teachers College, Jersey City, New Jersey.

- Guanella, Frances M., Research Assistant, New York City Board of Education, 110 Livingston Street, Brooklyn 2, New York.
- Gunn, Helen V., Personnel Technician, Oklahoma City Air Materiel Area, Civilian Personnel Section, Tinker Air Force Base, Oklahoma City, Oklahoma.
- Gunn, Mary Agnella, Associate Professor of Education, School of Education, Boston University, 84 Exeter Street, Boston 16, Massachusetts.
- Haggerty, William J., President, State Teachers College, Plattekill Avenue, New Paltz, New York.
- Hamlin, Herbert McNee, Professor of Agricultural Education, College of Education, University of Illinois, 103 Gregory Hall, Urbana, Illinois.
- Hamon, Ray L., Chief, Schoolhousing Section, U. S. Office of Education, Washington, D. C.
- Hand, Harold C., Professor of Education, University of Illinois, Urbana, Illinois.
- Hanna, Paul R., Professor of Education, Stanford University, Stanford, California.
- Hansen, Harvey C., Director, Evaluation and Testing Service, Extension Division, University of Oklahoma, North Campus, Norman, Oklahoma.
- Herrington, H. L., Assistant Superintendent of Schools, 1354 Broadway, Detroit 26, Michigan.
- Harris, Chester William, Associate Professor of Education, Department of Education, School of Education, University of Wisconsin, Madison 6, Wisconsin.
- Harry, David P., Jr., Professor of Education, Graduate School, Western Reserve University, Cleveland, Ohio.
- Hartmann, George W., Professor of Psychology, Roosevelt College, 430 South Michigan Boulevard, Chicago 5, Illinois.
- Hartstein, Jacob I., Professor and Head, Education and Psychology, Long Island University, Brooklyn, New York.
- Hastings, J. Thomas, University Examiner and Director, Unit on Evaluation, Bureau of Research and Service, College of Education, University of Illinois, 1007 South Wright Street, Champaign, Illinois.
- Hatcher, Hazel M., Professor of Home Economics Education, Pennsylvania State College, State College, Pennsylvania.
- Havighurst, Robert J., Professor of Education, University of Chicago, Chicago 37, Illinois.
- Headley, John W., President, St. Cloud State Teachers College, St. Cloud, Minnesota.
- Heaton, Kenneth L., Dean of Admissions and Examinations, Boston University, Boston, Massachusetts.
- Heck, Arch O., Professor of Education, Ohio State University, Columbus, Ohio.
- Hedlund, Paul A., Associate Education Supervisor, Division of Research, State Education Department, Albany, New York.
- Hendricks, Jake J., Field Representative, Education Department, The Macmillan Company, #6 Enfield Road, Austin 21, Texas.
- Hendrickson, Gordon, Professor of Education, University of Cincinnati, Cincinnati, Ohio.
- Henry, Nelson B., Professor of Education, University of Chicago, Chicago, Illinois.
- Herrick, John H., Head, Survey Division, Bureau of Educational Research, Ohio State University, Columbus 10, Ohio.
- Herrick, Virgil E., Professor of Education, University of Wisconsin, Madison 6, Wisconsin.
- Hertzberg, Oscar E., Head, Department of Education, New York State College for Teachers, Buffalo, New York.
- Hertzler, Silas, Director of Teacher Training, Goshen College, Goshen, Indiana.
- Hieronimus, Albert N., Assistant Professor, Educational Psychology, College of Education, State University of Iowa, Iowa City, Iowa.
- Hildreth, Gertrude, Assistant Professor of Education, Brooklyn College of the City of New York, Brooklyn, New York.
- Hill, George E., Professor of Education, Ohio University, Athens, Ohio.
- Hockett, John A., Professor of Education, University of California, Los Angeles 24, California.
- Hodgkins, George W., Curriculum Revision, Public Schools, Central High School, Washington 9, D. C.
- Hogan, Ralph M., Head of the Manpower Branch, Human Resources Division, Office of Naval Research, Washington, D. C.

- Holy, T. C.**, Director, Bureau of Educational Research, Ohio State University, Columbus, Ohio. (President of AERA, 1934-35; Member, Board of Editors, *Encyclopedia of Educational Research*, revised edition.)
- Hopkins, L. Thomas**, Professor of Education, Teachers College, Columbia University, New York, New York.
- Horan, Ellamay**, 2373 East 70th Street, Chicago 49, Illinois.
- Horn, Ernest**, Professor of Education, State University of Iowa, Iowa City, Iowa. (President of AERA, 1946-47.)
- Horrocks, John E.**, Associate Professor, Department of Psychology, Ohio State University, Columbus 10, Ohio.
- Horton, Lena Mary**, Editorial Research Consultant in Child Development, Scott, Foresman, and Company, 433 East Erie Street, Chicago 11, Illinois.
- Houle, Cyril O.**, Dean of University College, University of Chicago, Chicago, Illinois.
- Hoyt, Cyril J.**, Associate Director, Bureau of Educational Research, College of Education, University of Minnesota, 211 Burton Hall, Minneapolis 14, Minnesota.
- Hubbard, Frank W.**, Director, Research Division, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C. (Secretary-Treasurer of AERA, 1946-52; Member, Board of Editors, *Encyclopedia of Educational Research*, revised edition.)
- Huggett, Albert J.**, Associate Professor of Education, Michigan State College, East Lansing, Michigan.
- Hughes, James M.**, Dean, School of Education, Northwestern University, Evanston, Illinois.
- † **Hughes, W. Hardin**, Professor of Social Science, Talladega College, Talladega, Alabama.
- Hurd, Archer W.**, Director, Bureau of Educational Research and Service, Medical College of Virginia, Richmond, Virginia.
- Hutchins, Clayton D.**, Assistant Director, Research Division, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C.
- Hutchins, Heriot Clifton**, Field Representative, National Recreation Association, New York, New York.
- Hyatt, Ada V.**, Dean of Women, Kent State University, Kent, Ohio.
- Hyde, Edith I.**, Associate Supervisor of Physical Education, University of California, Los Angeles, California.
- Hyde, Richard E.**, Executive Secretary, Teachers Retirement Board, Charleston, West Virginia.
- Ingram, Christine P.**, Director of Special Education, Public Schools, Rochester, New York.
- Irby, Nolen M.**, President, Arkansas State Teachers College, Conway, Arkansas.
- Irwin, Manley E.**, Supervising Director of Instruction, Board of Education, Detroit, Michigan.
- Jackson, Reid E.**, Director, Bureau of Educational Research, Wilberforce State College, Wilberforce, Ohio.
- Jacobs, Robert**, Administrative Assistant, Educational Records Bureau, 21 Audubon Avenue, New York 32, New York.
- Jacobson, Paul B.**, Dean, School of Education, University of Oregon, Eugene, Oregon.
- Jarvie, L. L.**, Executive Dean, State University of New York, Albany, New York.
- Jensen, Kai**, Professor of Education, University of Wisconsin, Madison, Wisconsin.
- Jersild, Arthur T.**, Professor of Education, Teachers College, Columbia University, New York, New York.
- Jessen, Carl A.**, Chief, Secondary School Organization and Supervision, U. S. Office of Education, Washington 25, D. C.
- John, Lenore S.**, Instructor in the Laboratory Schools, University of Chicago, Chicago, Illinois.
- Johnson, B. Lamar**, Dean of Instruction and Librarian, Stephens College, Columbia, Missouri.
- Johnson, Loaz W.**, Coordinator of Curriculum, Butte County Schools, Oroville, California.
- Johnson, Palmer O.**, Professor of Education, University of Minnesota, Minneapolis, Minnesota.
- Johnston, Marjorie C.**, 2231 North Evergreen Street, Phoenix, Arizona.

† Retirement member.

- Jones, Arthur J.**, Professor Emeritus of Secondary Education, School of Education, University of Pennsylvania, Philadelphia, Pennsylvania.
- Jones, Harold E.**, Professor of Psychology, University of California, Berkeley, California.
- Jones, Lloyd M.**, Professor of Physical Education, Pennsylvania State College, State College, Pennsylvania.
- Jones, Vernon**, Professor of Educational Psychology and Chairman, Department of Education, Clark University, Worcester, Massachusetts.
- Jordan, Arthur M.**, Professor of Educational Psychology, University of North Carolina, Chapel Hill, North Carolina.
- Jordan, Floyd**, Coordinator, Atlanta Area Teacher Education Service, Emory University, Georgia.
- Joyal, Arnold E.**, President, Fresno State College, Fresno 4, California. (Associate editor, *REVIEW OF EDUCATIONAL RESEARCH*, 1943-48.)
- Kawin, Ethel**, Consultant in Child Development, Illinois Association for Supervision and Curriculum Development, 1545 East Sixtieth Street, Chicago 37, Illinois.
- Kearney, Nolan C.**, Assistant Superintendent of Schools, 653 Court House, St. Paul 2, Minnesota.
- Keener, Edward E.**, Assistant Superintendent of Schools, 228 North LaSalle Street, Chicago 1, Illinois. (Vicepresident of AERA, 1927-28.)
- Keller, Robert J.**, Associate Director, Bureau of Institutional Research, University of Minnesota, 211 Burton Hall, Minneapolis 14, Minnesota.
- Kelley, Victor H.**, Director of Appointments, University of Arizona, Tucson, Arizona.
- Kent, Druzilla**, Head, Home Economics Education, College of Education, University of Tennessee, Knoxville, Tennessee.
- Kinzer, John Ross**, Associate Professor of Psychology, Ohio State University, Columbus, Ohio.
- Kirk, Samuel A.**, Professor of Education, College of Education, University of Illinois, Urbana, Illinois.
- Knower, Franklin H.**, Professor of Speech, Ohio State University, Columbus, Ohio.
- Koch, Harlan C.**, Professor of Education, University of Michigan, Ann Arbor, Michigan.
- Kohn, Nathan, Jr.**, Registrar, Counselor of University College and Assistant Professor of Education, Washington University, St. Louis 5, Missouri.
- Koos, Leonard V.**, Emeritus Professor of Secondary Education, University of Chicago, Chicago, Illinois.
- Kramer, Grace A.**, 319 East Twenty-Fifth Street, Baltimore, Maryland.
- Kramer, Magdalene E.**, Professor of Speech, Teachers College, Columbia University, New York, New York.
- Krugman, Mrs. Judith I.**, Psychologist, Bureau of Educational Research, New York City Board of Education, Brooklyn 2, New York.
- Kvaraceus, William C.**, Professor of Education, Boston University, Boston, Massachusetts.
- Kyte, George C.**, Professor of Education, University of California, Berkeley 4, California.
- Lange, Phil C.**, Professor of Education, State Teachers College, Fredonia, New York.
- Langmuir, Charles R.**, Associate Professor, Syracuse University, 941 Comstock Avenue, Syracuse 10, New York.
- Lannholm, Gerald V.**, Director, The Graduate Record Examination, Educational Testing Service, 20 Nassau Street, Princeton, New Jersey. (Editor, *AERA Newsletter*, 1950.)
- Lantz, Beatrice C. M.**, Coordinator, Research and Guidance, Los Angeles County Schools, Los Angeles 12, California.
- Larsen, Arthur Hoff**, Dean of the University and Professor of Education, Illinois State Normal University, Normal, Illinois.
- Lawler, Eugene S.**, Professor of Education, Northwestern University, Evanston, Illinois.
- Lazar, May**, Assistant Director, Bureau of Educational Research, Board of Education, 110 Livingston Street, Brooklyn 2, New York.
- Lean, Arthur E.**, Assistant Director, University Extension Service, University of Michigan, 4524 Administration Building, Ann Arbor, Michigan.
- Leary, Bernice E.**, Consultant in Curriculum, Madison Public Schools, Madison, Wisconsin.

- Lefever, D. Welty**, Professor of Education, University of Southern California, Los Angeles, California.
- Lehman, Harvey C.**, Professor of Psychology, Ohio University, Athens, Ohio.
- Lennon, Roger T.**, Director, Division of Test Research and Service, World Book Company, Yonkers 5, New York.
- Lincoln, Edward A.**, Consulting Psychologist, Thompson Street, Halifax, Massachusetts.
- Lindquist, E. F.**, Professor of Education, State University of Iowa, Iowa City, Iowa.
- Lloyd, Daniel Boone**, Teacher of Mathematics, Calvin Coolidge High School, Washington, D. C.
- Long, Alma**, Associate Professor, Research, Psychological Aspects of Home and Family Life, Division of Education and Applied Psychology, Ross-Ade Drive, Building 2, Purdue University, Lafayette, Indiana.
- Lonsdale, Richard C.**, Director, Bureau of School Service, School of Education, Syracuse University, Syracuse 10, New York.
- Loomis, Arthur K.**, Chief, Education Division, Civil Information and Education Section, GHQ, SCAP, APO 500, % Postmaster, San Francisco, California.
- Lorge, Irving**, Professor of Education, Teachers College, Columbia University, New York, New York. (Member, Board of Editors, *Encyclopedia of Educational Research*, revised edition.)
- Lovejoy, Philip C.**, General Secretary, Rotary International, Chicago, Illinois.
- Ludington, John R.**, Specialist in Industrial Arts, U. S. Office of Education, Washington, D. C.
- Lyle, Mary S.**, Professor of Home Economics Education, Iowa State College, Home Economics Building, Ames, Iowa.
- Maaske, Roben J.**, President, Eastern Oregon College of Education, La Grande, Oregon.
- McCall, William A.**, Tapoco, North Carolina.
- McClure, Worth**, Executive Secretary, American Association of School Administrators, 1201 Sixteenth Street, N. W., Washington 6, D. C.
- McClusky, Howard Y.**, Professor of Educational Psychology, School of Education, University of Michigan, Ann Arbor, Michigan.
- McConnell, T. R.**, Dean, College of Science, Literature, and the Arts, University of Minnesota, Minneapolis, Minnesota. (President of AERA, 1941-42.)
- McDaid, Elmer W.**, Supervisor, Instructional Research, Detroit Board of Education, 1354 Broadway, Detroit 26, Michigan.
- McFall, Kenneth H.**, Dean, College of Liberal Arts, Bowling Green State University, Bowling Green, Ohio.
- McKelvey, Frederick H.**, Director, Center for Educational Service, College of Education, Ohio University, Athens, Ohio.
- McKim, Margaret C.**, Associate Professor of Education, Teachers College, University of Cincinnati, Cincinnati 21, Ohio.
- McLaughlin, Katherine L.**, Professor Emeritus, University of California, Los Angeles, California.
- McLure, William P.**, Associate Professor of Education, College of Education, University of Illinois, Urbana, Illinois.
- McNamara, Walter J.**, Special Representative, Educational Institution, International Business Machines Corporation, 590 Madison Avenue, New York 22, New York.
- Mackenzie, Gordon N.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.
- Mackintosh, Helen K.**, Chief, Instructional Problems, Elementary Division, U. S. Office of Education, Washington 25, D. C.
- Madsen, I. N.**, Head, Department of Psychology, Northern Idaho College of Education, Lewiston, Idaho.
- Manuel, Herschel T.**, Professor of Educational Psychology, University of Texas, Austin, Texas.
- Manwiller, Charles E.**, Director of Curriculum Study and Research, Pittsburgh Public Schools, Administration Building, Pittsburgh, Pennsylvania.
- Martens, Elise H.**, Chief, Exceptional Children and Youth, U. S. Office of Education, Washington 25, D. C.
- Martin, Edwin D.**, Director of Research, Houston Public Schools, Houston, Texas.

- Martin, Lycia O.**, Associate Professor of Education, State Teachers College, Trenton, New Jersey.
- Martin, W. Howard**, Associate Professor, Agricultural Education, University of Connecticut, Storrs, Connecticut.
- Masters, Harry V.**, President, Albright College, Reading, Pennsylvania.
- Mathews, Chester O.**, Professor of Education, Director, Evaluation Service, Ohio Wesleyan University, Delaware, Ohio.
- Maucker, J. William**, Dean, School of Education, Montana State University, Missoula, Montana.
- Maul, Ray C.**, Dean of the College, Kansas State Teachers College, Emporia, Kansas.
- May, Mark A.**, Professor, Educational Psychology and Director, Institute of Human Relations, Yale University, New Haven, Connecticut.
- Mead, Arthur R.**, Director of Educational Research, University of Florida, Gainesville, Florida.
- Meadows, Austin R.**, State Superintendent of Education, State Department of Education, Montgomery, Alabama.
- Meder, Elsa M.**, Associate Editor, Educational Department, Houghton Mifflin Company, Boston, Massachusetts.
- Melcher, George**, Superintendent Emeritus, Kansas City Public Schools, Kansas City, Missouri. (Secretary-Treasurer of AERA, 1915-18.)
- Melville, S. Donald**, Assistant Director, Counseling Service, Princeton University, Princeton, New Jersey.
- Mendenhall, James E.**, Book Editor, Science Research Associates, 228 South Wabash Avenue, Chicago 4, Illinois.
- Meshke, Edna**, Santa Barbara College, University of California, Santa Barbara, California.
- Michaelis, John U.**, Associate Professor of Education and Director of Supervised Teaching, Department of Education, University of California, Berkeley 4, California.
- Miles, John R.**, Director of Research, Committee on Education, U. S. Chamber of Commerce, Washington 6, D. C.
- Miller, Murray Lincoln**, Chief, Reading Improvement Branch, Educational Advisory Staff, The Air University, Maxwell Air Force Base, Maxwell Field, Alabama.
- Mitchell, Guy C.**, Professor, Department of Education and Psychology, Mississippi College, Clinton, Mississippi.
- Moehlman, Arthur B.**, Professor of School Administration and Supervision, University of Michigan, Ann Arbor, Michigan. (President of AERA, 1928-29.)
- ** Monroe, Walter S.**, Distinguished Professor of Education, Bureau of Research and Service, University of Illinois, Urbana, Illinois. (President of AERA, 1916-17; Editor, *Encyclopedia of Educational Research*, 1941 and revised edition.)
- Moon, Robert C.**, Director of Intern Teaching, Florida State University, Tallahassee, Florida.
- Moore, Clyde B.**, Professor, School of Education, Cornell University, Ithaca, New York.
- Morgan, Barton**, Director of Teacher Education, Iowa State College, 220 Curtiss Hall, Ames, Iowa.
- Morgan, Walter E.**, Finance Officer, Education Division, Civil Information and Education Section, GHQ, SCAP, APO 500, % Postmaster, San Francisco, California.
- Morneweck, Carl D.**, Chief, Division of Child Accounting and Research, State Department of Public Instruction, Harrisburg, Pennsylvania.
- Morphet, Edgar L.**, Professor of Education, University of California, Berkeley 4, California.
- Morrison, Harriet Barthelmess**, Consulting Psychologist, Derry, New Hampshire.
- Morrison, J. Cayce**, Assistant Commissioner for Research, New York State Education Department, Albany, New York. (President of AERA, 1929-30; Chairman, Board of Editors, *Encyclopedia of Educational Research*, revised edition; Chairman, Editorial Board, *REVIEW OF EDUCATIONAL RESEARCH*, 1943-48.)
- Morrison, Robert H.**, Assistant Commissioner for Higher Education, State of New Jersey, Trenton 8, New Jersey.
- Mort, Paul R.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.

- Morton, R. L.**, Professor of Education, Ohio University, Athens, Ohio. (Vicepresident of AERA, 1931-32.)
- Moulton, John K.**, Teacher, Brookline, Massachusetts.
- Munson, Saron E.**, Associate Professor of Education, Franklin and Marshall College, Lancaster, Pennsylvania.
- Murdoch, Bernard C.**, Research Associate, American Council on Education, 1703 K Street, N. W., Washington, D. C.
- Murphy, Helen A.**, Associate Professor of Education, School of Education, Boston University, Boston 16, Massachusetts.
- Myers, Anna G.** (Retired), Lost Bridge Road, Route 6, Decatur, Illinois (formerly Assistant Director of Research, Public Schools, Kansas City, Missouri).
- Myers, Charles E.** (Retired), Studley, Virginia (formerly Supervisor of Research, State Department of Education, Richmond 16, Virginia).
- Myers, Garry C.**, Editor of *Highlights for Children*, Boyds Mills, Wayne County, Pennsylvania.
- Nelson, M. J.**, Dean of the Faculty, Iowa State Teachers College, Cedar Falls, Iowa.
- Nelson, Milton G.**, Dean of the College, New York State College for Teachers, Albany 3, New York.
- Nemzek, Claude L.**, Chairman, Education Department, University of Detroit, Detroit, Michigan.
- Netzer, Royal F.**, Dean, State Teachers College, Geneseo, New York.
- Newell, Clarence A.**, Professor of Educational Administration, College of Education, University of Maryland, College Park, Maryland.
- Nifenecker, Eugene A.**, Director, Bureau of Reference, Research and Statistics, New York City Board of Education, Brooklyn 2, New York.
- Noll, Victor H.**, Professor of Education, Michigan State College, East Lansing, Michigan.
- Northby, Arwood S.**, Director, Division of Student Personnel, University of Connecticut, Storrs, Connecticut.
- Norton, John K.**, Director, Division II—Administration and Guidance, Teachers College, Columbia University, New York, New York. (President of AERA, 1927-28.)
- Novak, Benjamin J.**, Science Instructor, Dobbins Vocational-Technical School, Twenty-Second and Lehigh Avenue, Philadelphia 32, Pennsylvania.
- Nutter, H. E.**, Director, Curriculum Laboratory, College of Education, University of Florida, Gainesville, Florida.
- O'Brien, Cyril C.**, Assistant Professor, Department of Education, Marquette University, Milwaukee 3, Wisconsin.
- Obrien, F. P.**, Professor of Education, University of Kansas, Lawrence, Kansas.
- Odell, C. W.**, Professor of Education, University of Illinois, Urbana, Illinois.
- Ojemann, Ralph H.**, Child Welfare Research Station, State University of Iowa, Iowa City, Iowa.
- Olson, Ove S.**, Professor of Education, Gustavus Adolphus College, St. Peter, Minnesota.
- Olson, Willard C.**, Director of Research in Child Development, University of Michigan, Ann Arbor, Michigan. (President of AERA, 1948-49.)
- Oppenheimer, J. J.**, Dean of College of Arts and Sciences, University of Louisville, Louisville 8, Kentucky.
- Orleans, Jacob S.**, Professor of Education and Director of Research and Evaluation, The College of the City of New York, 695 Park Avenue, New York 21, New York.
- O'Rourke, L. J.**, Director, The Psychological Institute, Lake Alfred, Florida.
- Osburn, Worth J.**, Professor of Remedial and Experimental Education, University of Washington, Seattle, Washington. (President of AERA, 1926-27.)
- Otis, Arthur S.**, Consultant for Civil Aeronautics Administration, Commerce Building, Washington 25, D. C.
- Otto, Henry J.**, Graduate Professor of Elementary Administration and Curriculum, University of Texas, Austin, Texas.
- Overn, Alfred V.**, Professor of Education, University of North Dakota, University Station, North Dakota.
- Pace, C. Robert**, Director, Evaluation Service Center, Syracuse University, Syracuse 10, New York.

- Parke, Margaret B.**, Research Assistant, Bureau of Curriculum, New York City Board of Education, Brooklyn 2, New York.
- Parker, Ethel L.**, Head, Teacher Education in Home Economics, College of Education, University of Kentucky, Lexington, Kentucky.
- Parson, R. B.**, Professor of Education, School of Education, Murray State College, Murray, Kentucky.
- Pastore, Nicholas**, Lecturer, Hunter College, 695 Park Avenue, New York, New York.
- Pattison, Mattie**, Professor of Home Economics Education, Iowa State College, Ames, Iowa.
- Paul, Joseph B.**, Director, Bureau of Research, Iowa State Teachers College, Cedar Falls, Iowa.
- Pauly, Frank R.**, Director of Research, Tulsa Public Schools, Tulsa, Oklahoma.
- Pease, Katharine**, Instructor, Department of Psychology, Barnard College, Columbia University, New York 27, New York.
- Peik, W. E.**, Dean, College of Education, University of Minnesota, Minneapolis, Minnesota.
- Perry, Winona M.**, Professor of Educational Psychology and Measurements, University of Nebraska, Lincoln, Nebraska.
- Peterson, Elmer T.**, Dean, College of Education, State University of Iowa, Iowa City, Iowa.
- Pfieger, Elmer F.**, Evaluation Director, Citizenship Education Study, Detroit Public Schools and Wayne University, Detroit, Michigan.
- Phay, John E.**, Associate Professor of Education and Director of the Bureau of Educational Research, School of Education, University of Mississippi, University, Mississippi.
- Phillips, Albert J.**, Executive Secretary, Michigan Education Association, Lansing, Michigan.
- Popenoe, Herbert**, Supervisor, Administrative Services Branch, Los Angeles City Schools, Los Angeles 12, California.
- Portenier, Lillian**, Professor of Psychology, College of Liberal Arts, University of Wyoming, Laramie, Wyoming.
- Porter, Rutherford B.**, Head, Division of Special Education and Director, Special Education Clinics, Indiana State Teachers College, Terre Haute, Indiana.
- Poruben, Adam, Jr.**, Personnel Psychologist, Personnel Division, Metropolitan Life Insurance Company, New York, New York.
- Potter, Mary A.**, Supervisor of Mathematics, Board of Education, Racine, Wisconsin.
- Potter, Muriel C.**, Instructor, Psychological Foundations and Educational Research, Teachers College, Columbia University, New York 27, New York.
- Potthoff, Edward F.**, Director, Bureau of Institutional Research, University of Illinois, Urbana, Illinois.
- Powers, S. Ralph**, Professor of Natural Sciences, Teachers College, Columbia University, New York 27, New York.
- Pressey, Sidney L.**, Professor of Psychology, Ohio State University, Columbus, Ohio.
- Preston, Ralph C.**, Associate Professor of Education, University of Pennsylvania, Philadelphia, Pennsylvania.
- Price, Mrs. Hazel H.**, Associate Professor of Home Economics Education, Ohio State University, Columbus, Ohio.
- Quattlebaum, Charles A.**, Specialist in Education, Legislative Reference Service, The Library of Congress, Washington 25, D. C.
- Rankin, Paul T.**, Assistant Superintendent of Schools, Detroit, Michigan. (President of AERA, 1933-34.)
- Reals, Willis H.**, Dean, University College, Washington University, St. Louis, Missouri.
- Reavis, William C.**, Professor Emeritus of Education, University of Chicago, Chicago, Illinois.
- Redd, George N.**, Head of Department of Education, Fisk University, Nashville, Tennessee.
- Reed, Homer B.**, Professor of Psychology, Fort Hays Kansas State College, Hays, Kansas.
- Reeves, Floyd W.**, Professor of Administration, University of Chicago, Chicago, Illinois.
- Rein, W. C.**, Special Assistant for Operations, Office of Assistant Administrator for Vocational Rehabilitation and Education, Veterans Administration, Munitions Building, Washington, D. C.

- Reinhardt, Emma**, Head, Department of Education, Eastern Illinois State College, Charleston, Illinois.
- Reitz, William**, Associate Professor of Education, Examiner, College of Education, Wayne University, 5272 Second Street, Detroit 2, Michigan.
- Remmers, H. H.**, Director, Division of Educational Reference, Purdue University, Lafayette, Indiana.
- Remmlein, Mrs. Madaline Kinter**, Assistant Director, Research Division, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C.
- Reusser, Walter C.**, Dean, Division of Adult Education and Community Service and Head, Department of Educational Administration, University of Wyoming, Laramie, Wyoming.
- Rice, Arthur H.**, Managing Editor, *Nation's Schools*, 919 North Michigan Avenue, Chicago 11, Illinois.
- Richardson, H. D.**, Dean of the College, Arizona State College, Tempe, Arizona.
- Richey, Herman G.**, Professor of Education, University of Chicago, Chicago 37, Illinois.
- Rinsland, Henry D.**, Professor of School Measurements, University of Oklahoma, Norman, Oklahoma.
- Rivlin, Harry N.**, Chairman, Department of Education and Director of Graduate Studies, Queens College, Flushing, New York.
- Robbins, Irving**, Assistant Professor of Education, University of Cincinnati, Cincinnati, Ohio.
- Roberts, S. Oliver**, Associate Professor of Psychology and Education, Fisk University, Nashville 8, Tennessee.
- Robinson, Francis P.**, Professor of Psychology, Ohio State University, Columbus, Ohio.
- Roeder, Edward C.**, Associate Professor of Education, College of Education, University of Missouri, Columbia, Missouri.
- Rogers, Malcolm B.**, Superintendent of Schools, Board of Education, Meriden, Connecticut.
- Rose, Ella J.**, Professor, Home Economics Education, University of Minnesota, University Farm, St. Paul 1, Minnesota.
- Ross, Maurice J.**, Associate Consultant, Bureau of Research and Planning, Connecticut State Department of Education, State Office Building, Hartford, Connecticut.
- Rothney, John W. M.**, Professor of Education, University of Wisconsin, Madison 6, Wisconsin.
- Rugen, Mabel E.**, Professor of Health Education, School of Education and School of Public Health, University of Michigan, Ann Arbor, Michigan.
- Rugg, Earle U.**, Chairman, Division of Education, Colorado State College of Education, Greeley, Colorado.
- Rulon, Phillip J.**, Professor of Education, Harvard Graduate School of Education, Cambridge, Massachusetts.
- Russell, David H.**, Professor of Education, University of California, Berkeley, California.
- Russell, John Dale**, Director, Division of Higher Education, U. S. Office of Education, Washington, D. C.
- * **Russell, William F.**, President, Teachers College, Columbia University, 525 West 120th Street, New York 27, New York.
- Ryans, David G.**, Director, American Council on Education, Teacher Characteristics Study, University of California, Los Angeles 24, California.
- Salten, David G.**, Administrative Assistant, Metropolitan Vocational High School, Oliver, Oak and James Streets, New York 2, New York.
- Sangren, Paul V.**, President, Western Michigan College, Kalamazoo, Michigan.
- Scates, Douglas E.**, Director of Research in Scientific Personnel, Office of Naval Research Projects, American Council on Education, 1703 K Street, N. W., Washington 6, D. C. (President of AERA, 1947-48; Member, Board of Editors, *Encyclopedia of Educational Research*, revised edition; Chairman, Editorial Board, *REVIEW OF EDUCATIONAL RESEARCH*, 1937-43.)
- Schloerb, Lester J.**, Director, Bureau of Instruction Materials, Chicago Board of Education, 228 North LaSalle Street, Chicago 1, Illinois.

* Honorary member.

- Schmidt, Bernardine G.**, Associate Professor of Education and Director of Special Education Clinic, University of Mississippi, University, Mississippi.
- Schonell, Fred J.**, The Faculty of Education, University of Queensland, Brisbane, Queensland, Australia.
- Schorling, Raleigh**, Professor, University of Michigan, Ann Arbor, Michigan.
- Schreiber, Paul R.**, Head, Social Studies Department, Mackenzie High School, 9275 Wyoming Road, Detroit 4, Michigan.
- Scott, C. Winfield**, Director, Vocational Counseling Service, Inc., 321 Congress Avenue, New Haven 11, Connecticut.
- Seagoe, May V.**, Professor of Education, University of California, 405 Hilgard Avenue, Los Angeles 24, California.
- Sears, Jesse B.**, Professor Emeritus, Stanford University, Stanford, California.
- Seay, Maurice F.**, Dean of the University and Registrar, College of Education, University of Kentucky, Lexington, Kentucky.
- Seegers, J. Conrad**, Dean, Teachers College, Temple University, Philadelphia 22, Pennsylvania.
- Segel, David**, Specialist in Tests and Measurements, U. S. Office of Education, Washington 25, D. C. (Secretary-Treasurer of AERA, 1943-46.)
- Segner, Esther F.**, Research Associate, Division of Research, New York State Education Department, Albany, New York.
- Sells, Saul B.**, Chief, Department of Clinical Psychology, United States Air Force School of Aviation Medicine, Randolph Air Force Base, Randolph Field, San Antonio, Texas.
- Seymour, Howard C.**, Coordinator, Division of Guidance Services, Board of Education, 13 South Fitzhugh Street, Rochester 14, New York.
- Shea, James T.**, Director of Research, Independent School District, San Antonio, Texas.
- Sheats, Paul H.**, Associate Director, University Extension, University of California, Los Angeles, California.
- Silvey, Herbert M.**, Assistant Director of Research, Bureau of Research, Iowa State Teachers College, Cedar Falls, Iowa.
- Simpson, Alfred D.**, Professor of Education, Graduate School of Education, Harvard University, Peabody House, 13 Kirkland Street, Cambridge 38, Massachusetts. (Vicepresident of AERA, 1932-33.)
- Sims, Verner M.**, Professor of Psychology, Bureau of Educational Research, College of Education, University of Alabama, University, Alabama.
- Singleton, Gordon G.**, President, Mary Hardin-Baylor College, Baylor Station, Belton, Texas.
- Skard, Aase Gruda**, Associate Professor, Psychological Institute, University of Oslo, Karl Johans gt 47, Oslo, Norway.
- Smallenburg, Harry W.**, Director, Division of Research and Guidance, Los Angeles County Schools, Los Angeles, California.
- Smith, Dora V.**, Professor of Education, University of Minnesota, Minneapolis, Minnesota.
- Smith, Harry P.**, Professor of Education, Syracuse University, Syracuse, New York.
- Smith, Henry P.**, Associate Professor of Education, School of Education, University of Kansas, Lawrence, Kansas.
- Soper, Wayne W.**, Chief, Bureau of Statistical Services, State Education Department, Albany, New York.
- Spence, Ralph B.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.
- Spencer, Peter L.**, Professor of Education, Claremont College, Claremont, California.
- Spitzer, Herbert F.**, Associate Professor of Education, University Elementary School, Iowa City, Iowa.
- Stalnaker, John M.**, Professor of Psychology, Illinois Institute of Technology, 185 North Wabash Avenue, Chicago 1, Illinois.
- Stanley, Julian Cecil, Jr.**, Associate Professor of Educational Psychology, Department of Psychology, George Peabody College for Teachers, Nashville 4, Tennessee.
- Stauffer, Russell G.**, The Reading Clinic, Department of Psychology, Temple University, Philadelphia 22, Pennsylvania.

- Stegeman, William H.**, Professor of Education, Chico State College, West First Street, Chico, California.
- Stenquist, John L.**, Director of Measurement, Statistics, and Research, Public Schools, 3 East Twenty-Fifth Street, Baltimore, Maryland. (President of AERA, 1931-32.)
- Stern, Bessie C.** (Retired), 4013 Maine Avenue, Baltimore 7, Maryland (formerly Director of Finance, Statistics, and Educational Measurements, State Department of Education, Baltimore, Maryland).
- Stewart, Naomi**, Director of Studies in Educational Psychology, Scientific Research Department of the American Jewish Committee, 425 Fourth Avenue, New York 16, New York.
- Stoke, Stuart M.**, Professor of Psychology and Education, Mount Holyoke College, South Hadley, Massachusetts.
- Stout, Minard W.**, Associate Professor and Principal, University High School, University of Minnesota, Minneapolis, Minnesota.
- Strachan, Lexie**, Psychologist, Public Schools, Kansas City, Missouri.
- Strang, Ruth M.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.
- Stratemeyer, Florence B.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.
- Strayer, George D., Jr.**, Professor of Education, College of Education, University of Washington, Seattle 5, Washington.
- Stroud, J. B.**, Professor of Education and Psychology, State University of Iowa, Iowa City, Iowa.
- * **Studebaker, J. W.**, Vicepresident and Chairman, Editorial Board, Scholastic Magazines, 7 East Twelfth Street, New York, New York.
- Sueltz, Ben A.**, Professor of Mathematics, State Teachers College, Cortland, New York.
- Sullivan, Helen Blair**, Professor of Education, School of Education, Boston University, 84 Exeter Street, Boston 16, Massachusetts.
- Super, Donald E.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.
- Swann, Reginald L.**, Associate Professor of Psychology and Education, Teachers College of Connecticut, New Britain, Connecticut.
- Swenson, Esther J.**, Professor of Elementary Education, University of Alabama, University, Alabama.
- Symonds, Percival M.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.
- Tait, Arthur T.**, Assistant Director of Research, California Test Bureau, 5916 Hollywood Boulevard, Los Angeles 28, California.
- Tatum, Beulah Benton**, Assistant Professor of Education, The Johns Hopkins University, Baltimore, Maryland.
- * **Terman, Lewis M.**, Professor Emeritus of Psychology, Stanford University, Stanford, California.
- Terry, Paul W.**, Professor of Educational Psychology, College of Education, University of Alabama, University, Alabama.
- Theisen, W. W.**, Superintendent of Schools, pro tem, Milwaukee, Wisconsin. (President of AERA, 1922-23.)
- Thibadeau, Charles R.**, Superintendent of Schools, Belmont 78, Massachusetts.
- Thompson, Anton**, Supervisor of Research, Long Beach Public Schools, 715 Locust Avenue, Long Beach 13, California.
- Thompson, Charles E.**, Clinical Psychologist, Veterans Administration Hospital, North Little Rock, Arkansas.
- Thompson, George G.**, Professor of Educational Psychology, Syracuse University, Syracuse, New York.
- Thorndike, Robert L.**, Professor of Education, Teachers College, Columbia University, New York 27, New York.
- Thorp, Mary T.**, Director, Henry Barnard School, Rhode Island College of Education, Providence, Rhode Island.
- Tidwell, Robert E.**, Dean, Extension Division, Professor of Education, University of Alabama, University, Alabama.

* Honorary member.

- Tiegs, Ernest W.**, Editor-in-Chief, California Test Bureau, 5916 Hollywood Boulevard, Los Angeles 28, California.
- Tilton, J. Warren**, Associate Professor of Educational Psychology, Department of Education, Yale University, New Haven, Connecticut.
- Tinkelman, Sherman**, Civil Service Examiner, New York City Civil Service Commission, and Lecturer in Educational Research, Queens College, Flushing, New York.
- Todd, Mrs. Vivian Edmiston**, Textbook and Curriculum Specialist (Science), General Headquarters, Supreme Command of Allied Powers, Civil Information and Education, APO 500, % Postmaster, San Francisco, California.
- Toops, Herbert A.**, Professor of Psychology, Ohio State University, Columbus, Ohio.
- Torgerson, T. L.**, Professor of Education, University of Wisconsin, Madison, Wisconsin.
- Townsend, Agatha**, Research Assistant, Educational Records Bureau, 21 Audubon Avenue, New York 32, New York.
- Trabue, M. R.**, Dean, School of Education, Pennsylvania State College, State College, Pennsylvania. (President of AERA, 1925-26.)
- Travers, Robert M. W.**, Assistant Director, Office of Research and Evaluation in Teacher Education, Board of Higher Education, 695 Park Avenue, New York 21, New York.
- Traxler, Arthur E.**, Associate Director, Educational Records Bureau, 21 Audubon Avenue, New York 32, New York.
- Triggs, Frances Oralind**, Adjunct Professor, University College, Rutgers University, New Brunswick, New Jersey.
- Trow, William Clark**, Professor of Educational Psychology, University of Michigan, Ann Arbor, Michigan.
- Troyer, Maurice E.**, Professor of Education, School of Education, Syracuse University, Syracuse, New York.
- Truitt, W. J. B.**, Director of Research, Norfolk Public Schools, School Administration Building, Bank and Charlotte Streets, Norfolk 10, Virginia.
- Tschechtelin, Sister M. Amatora**, St. Francis College, Fort Wayne, Indiana.
- Turney, Austin H.**, Director of Guidance Bureau, University of Kansas, Strong Hall, Annex B., Lawrence, Kansas.
- Tyler, Ralph W.**, Dean, Division of the Social Sciences, University of Chicago, 1126 East Fifty-Ninth Street, Chicago 37, Illinois.
- Tyler, Tracy F.**, Associate Professor of Education, University of Minnesota, Minneapolis, Minnesota.
- Umstadtd, James G.**, Professor of Secondary Education, University of Texas, Austin, Texas.
- Upshall, Charles C.**, Industrial Relations Department, Eastman Kodak Company, Rochester 4, New York.
- Urell, Catherine**, Junior Research Assistant, Bureau of Reference, Research and Statistics, New York City Board of Education, Brooklyn 2, New York.
- Van Alstyne, Dorothy**, Senior Clinical Psychologist, Mental Hygiene Clinic, District of Columbia Health Department, Washington, D. C.
- Van Wagenen, M. J.**, Department of Educational Psychology, University of Minnesota, Minneapolis, Minnesota.
- Varty, Jonathan W.**, Technical Adviser on Exams, Brooklyn College, Brooklyn, New York.
- Vies, N. E.**, Specialist in School Plant Management, U. S. Office of Education, Washington 25, D. C.
- Votaw, D. F.**, Professor of Education, Southwest Texas State College, San Marcos, Texas.
- Walker, Helen M.**, Professor of Education, Teachers College, Columbia University, New York 27, New York. (Secretary-Treasurer of AERA, 1940-43; President, 1949-50.)
- Walsh, J. Hartt**, Dean, College of Education, Butler University, Indianapolis 7, Indiana.
- Warren, Worcester**, Professor of Education, Boston University, Boston, Massachusetts.

- Washburne, Carleton W.**, Chairman, Department of Education, Director, Graduate Division, Brooklyn College, Brooklyn 10, New York.
- Waterman, Ivan R.**, Chief, Bureau of Textbooks and Publications, California State Department of Education, Sacramento 14, California.
- Waters, Eugene A.**, Dean, Graduate School, University of Tennessee, Knoxville 16, Tennessee.
- Watkins, Ralph K.**, Professor of Education, University of Missouri, Columbia, Missouri.
- Weedon, Vivian**, Curriculum Consultant, National Safety Council, Chicago, Illinois.
- Weinrich, Ernest F.**, Assistant Superintendent, Public Schools, Schenectady 5, New York.
- Weitz, Henry**, Director of Psychological Services Center, University of Delaware, Newark, Delaware.
- Wert, James E.**, Professor of Education, Iowa State College, Ames, Iowa.
- Wesman, Alexander G.**, Associate Director, Test Division, Psychological Corporation, 522 Fifth Avenue, New York 18, New York.
- Westover, Frederick L.**, Associate Professor, College of Education, University of Alabama, University, Alabama.
- Weyer, Frank E.**, Dean, Hastings College, Hastings, Nebraska.
- Whitehead, Willis A.**, Educational Specialist, Outcalt, Guenther and Associates, Architects, 13124 Shaker Square, Cleveland 20, Ohio.
- Whitesel, John A.**, Professor of Industrial Arts Education, Miami University, Oxford, Ohio.
- Wilkins, Theresa Birch**, Research Assistant, Division of Higher Education, U. S. Office of Education, Federal Security Agency, Washington, D. C.
- Williams, J. Harold**, Acting Provost, Santa Barbara College, University of California, Santa Barbara, California.
- Willing, Matthew H.**, Professor of Education, University of Wisconsin, Madison 6, Wisconsin.
- Wilson, Elizabeth K.**, Associate Professor, Sociology, Division of Education and Applied Psychology, Purdue University, West Lafayette, Indiana.
- Winston, Ethna Beulah**, 1318 Vermont Avenue, N. W., Washington, D. C.
- Winterble, Margaret R.**, Research Assistant, Bureau of Reference, Research and Statistics, New York City Board of Education, Brooklyn 2, New York.
- Witty, Paul A.**, Professor of Education, Northwestern University, Evanston, Illinois.
- Wood, Austin B.**, Associate Professor, Department of Psychology, Brooklyn College, Brooklyn 10, New York.
- Wood, Ben D.**, Professor and Director of Bureau of Collegiate Educational Research in Teachers College, Columbia University, New York 27, New York.
- Wood, Ernest R.**, Professor of Education, New York University, New York 3, New York.
- Wood, Ray G.**, Director of Tests and Instructional Research, State Department of Education, Columbus, Ohio.
- Woods, Elizabeth L.**, Supervisor, Guidance and Counseling, Elementary Education Division, Los Angeles City Schools, 451 North Hill, Los Angeles 12, California.
- Worcester, D. A.**, Head, Department of Educational Psychology and Measurements, University of Nebraska, Lincoln, Nebraska.
- Wrenn, C. Gilbert**, Professor, Educational (Personnel) Psychology, University of Minnesota, Minneapolis, Minnesota.
- Wright, Wendell W.**, Dean, School of Education, Indiana University, Bloomington, Indiana.
- Wrightstone, J. Wayne**, Director, Bureau of Educational Research, Board of Education of the City of New York, 110 Livingston Street, Brooklyn 2, New York. (President of AERA, 1944-45.)
- Yeager, William A.**, Professor of Education, University of Pittsburgh, Pittsburgh, Pennsylvania.

Young, William E., Director of Elementary Education, New York State Education Department, Albany, New York.

Zapoleon, Marguerite W., Chief, Employment Opportunities Section, Research Division, Women's Bureau, U. S. Department of Labor, Washington 25, D. C.

Ziegfeld, Edwin, Head, Department of Fine and Industrial Arts, Teachers College, Columbia University, New York 27, New York.

* **Zook, George F.**, President, American Council on Education, Washington 6, D. C.

* Honorary member.

ASSOCIATE MEMBERS

- Baker, James F.**, School of Education, Boston University, Boston, Massachusetts.
- Bowman, Howard A.**, Supervisor of Test Construction, Los Angeles City Schools, 1205 West Pico Boulevard, Los Angeles 15, California.
- Cabot, Michael Lawrence**, Associate Professor, Education Department, Youngstown College, Youngstown, Ohio.
- Chadwick, Raymond D.**, Dean, Gogebic Junior College, Ironwood, Michigan.
- Clifford, Paul I.**, Director of Educational Research, School of Education, Atlanta University, 223 Chestnut Street, Atlanta, Georgia.
- Cole, David S.**, Principal, Marshall High School, 3250 West Adams Street, Chicago, Illinois.
- Cole, Glenn Albert**, Dormitory Supervisor and Counselor, Doak Hall, Texas Technological College, Lubbock, Texas.
- Coleman, Mary E.**, Assistant Professor of Education, School of Education, University of Pennsylvania, Philadelphia 4, Pennsylvania.
- Collings, Mary L.**, Home Economist, Division of Field Studies and Training, Extension Service, U. S. Department of Agriculture, Washington 25, D. C.
- Fawcett, Harold P.**, Professor, Ohio State University, Columbus, Ohio.
- Fifer, Gordon**, Educational Statistician, Division of Research and Guidance, Office Los Angeles County Superintendent of Schools, 808 North Spring Street, Los Angeles, California.
- Graham, Mattie**, Supervisor of Elementary Education and Director of Remedial Reading, Supervisor's Office, Knickerbocker Junior High School, Seventh Avenue at 107th Street, North Troy, New York.
- Harkins, Charles E.**, Principal, Bel Air High School, Gordon Street, Bel Air, Maryland.
- Harris, Ruth M.**, President, Stowe Teachers College, 2615 Pendleton Avenue, St. Louis, Missouri.
- Jantzen, J. Marc**, Dean, School of Education, College of the Pacific, Stockton 27, California.
- Judd, Abia W.**, Director of Elementary Education, Prescott Public Schools, Prescott, Arizona.
- Kearney, Leo I.**, Assistant Director, Bureau of Reference, Research and Statistics, New York City Board of Education, Brooklyn 2, New York.
- Lewis, Hazel M.**, Director of Research and Psychological Services, Stockton Unified School District, 324 North San Joaquin Street, Stockton 2, California.
- McTernan, John W.**, Professor of Education, State Teachers College, Plattsburg, New York.
- Mackenzie, Donald M.**, Dean, Blackburn College, Carlinville, Illinois.
- Martyn, Kenneth A.**, 265 Curtner Avenue, Palo Alto, California.
- Moore, Velma M.**, Teaching Principal, Elementary Grades: I-VI, Baker School, Altoona, Pennsylvania.
- Pittman, Joseph Avery**, Director, Graduate Education, North Carolina College at Durham, Durham, North Carolina.
- Prescott, George A.**, Lecturer in Measurement, School of Education, Boston University, 84 Exeter Street, Boston, Massachusetts.
- St. Lawrence, Francis James**, Biology Instructor, Technical High School, Bristol, Connecticut.
- Shane, Harold G.**, Professor of Education, School of Education, Northwestern University, Evanston, Illinois.
- Spaney, Emma**, Assistant Professor, Department of Psychology, Queens College of the City of New York, Flushing, New York.
- Swinehart, George B.**, Supervising Principal, Boyertown Public Schools, Boyertown, Pennsylvania.
- West, Russell W.**, Assistant Superintendent, Ann Arbor Public Schools, Ann Arbor, Michigan.
- Wheeler, Lester R.**, Director of Reading Clinic, University of Miami, Coral Gables, Florida.
- Wilcox, Glenn W.**, Remedial Reading, General College, Boston University, 84 Exeter Street, Boston, Massachusetts.

Index to Volume XIX

Page citations are made to single pages; these are often the beginning of a chapter, section, or running discussion dealing with the topic.

- Absenteeism, in industry, 414
- Academic freedom, 266
- Accident liability, 320
- Accreditation, 301
- Adjustment, 371; and achievement, 406; in the school group, 407; of teachers, 185, 195, 268, 407
- Administration, of health programs, 418, 428; of higher education, 343, 355; and mental hygiene, 409; of public relations, 311; of state school systems, 341; of supervision, 334; and teacher welfare, 265; inservice training for, 222; of transportation, 318
- Administrative officers, 291
- Administrative practices, 301
- Administrative relations, with teachers, 214
- Administrators, duties of, 292; personal traits, 292; salaries, 293; selection of, 292; tenure, 293; training of, 291
- Adult attitudes, 59
- Adult education, 314
- Aesthetics, 167
- Aims of education, 78
- Anxiety, 379
- Armed forces, reading instruction in, 97
- Art, aesthetics, 167; appreciation, 165; and child development, 163; and personality, 160, 390, 406; tests, 166
- Art education, 158; and international understanding, 159; methods, 160, 163, 165; trends, 158
- Articulation, high school-junior college, 302
- Associations, for teachers, 260
- Atomic energy, implications for education, 7, 9, 82
- Attitudes, measurement of, 58; racial, 129, 399; toward Russia, 60; toward self, 383; toward teachers, 408; toward teaching, 179, 180, 192, 266
- Audience response, 154
- Auditory defects, 420
- Audio-visual, aids, 63, 145; education, 304
- Bibliotherapy, 129, 406
- Blinking frequency, 113
- Boards of education, 298; duties, 299; handbooks, 299; in higher education, 356; personnel, 298; state, 342
- Buses, drivers, 320; number, 318; ownership, 319; standards, 321
- Business cycles, 42
- Certification of teachers, 179, 250; emergency, 181; improved standards, 251; legal aspects, 254; present status, 250
- Character development, 397
- Child development, and art, 163
- Citizenship education, 25; trends in, 29
- Class schedules, 303
- Class size, 235
- College reading programs, 96, 110
- College teachers, legal status of, 257; preparation of, 230
- Communism, 6, 8, 21
- Community, and health, 428; and mental health, 395; relations, 266; schools, 311
- Composition, English, 135
- Conservation of resources, 11
- Consolidation, (see reorganization)
- Continuance in school, 284
- Contracts, for teachers, 254
- County superintendents, 295
- Curriculum, English composition, 137, 138; in literature, 125; present status, 305; for teacher training, 203
- Delinquency, 386, 398, 400
- Demand, for teachers, 179, 182
- Democracy, a moral basis for, 24; and communism, 21; and economics, 10; and education, 21, 80; experimental approaches to the teaching of, 28; ideals of, 5; institutions of, 5; and the labor movement, 12; threats to, 8
- Democratization of educational practices, 80
- Disability, in reading, 95, 98, 107
- District organization, 283
- District reorganization, 283
- Doctor's degree, proposed changes in, 231
- Economic life, changes in, 42
- Economic planning, 13, 51
- Education, and social status, 39; as related to economic cycles, 42; for international understanding, 58, 61
- Educational opportunity, 32, 39, 81
- Educational planning, state, 344
- Emotional adjustment, 129, 371, 400; of teachers, 268
- Employment, and the national economy, 48
- English composition, 135; in college, 137, 140, 144; curriculum, 138; grammar, 135, 139; mechanics, 139; punctuation, 140; research summaries, 135; and

- success in college, 147; teaching methods, 142; teaching practices, 136; tests, 145; visual aids, 145
 Enrolment, and birth rate, 180
 Evaluation, of schools, 301; of supervision, 337
 Examinations, in teacher selection, 212
 Extension education, 221
 Extracurricular activities, 153
 Eye movements, 97, 109, 110
 Failure, in college, 198
 Federal aid to education, 33, 77, 82, 346, 418; arguments for, 347; opposition to, 348
 Federal control over education, 348
 Federal government and education, 346; leadership, 350; policies, 351; proposed legislation, 351
 Finance, and the national government, 43
 Freedom of the press, 9
 Frequency, of word usage, 118
 General education, 80, 82; in teacher training, 203
 Grammar, 135, 139
 Group therapy, 390
 Grouping of pupils, in elementary schools, 304
 Growth, developmental studies of, 423
 Guidance, of prospective teachers, 191, 196
 Handbooks, 299
 Handicapped, education of, 419; in industry, 414
 Handwriting, 118, 122; current practices, 122
 Health, 39; in industry, 413; school programs in, 418; of teachers, 267
 Health education, 427; evaluation of, 432; methods, 430; motivation for, 430; organization for, 427; school-community programs in, 428
 Health services, administration of, 418; improvement of, 423; in schools, 418
 Higher education, boards of control, 356; entrance requirements, 359; faculty relation, 358; financial aspects, 357; legal status, 356; needs, 357; organization and administration, 343, 355; surveys, 355; teacher training for, 230; of veterans, 358
 Homerooms, 303
 Hygiene, in schools, 422
 Illumination, and reading, 114
 Income, by states, 49; national, 49
 Industry, absenteeism, 414; employment of handicapped in, 414; health programs in, 415; human relations in, 415; mental health in, 413; safety in, 415
 Inequalities, 32, 39; and family income, 34
 Inservice training, of administrators, 291, 336; general principles of, 225; local programs, 220; needed research in, 226; regional programs, 220; role of colleges, 221; of teachers, 219, 337
 Intelligence, and reading ability, 98; and socio-economic status, 397; of teachers, 195
 Intelligence tests, clinical study of, 387
 Intercultural education, 8, 23, 35, 38, 57, 84, 129, 203, 398
 Interests, reading, 102, 126, 130
 Intermediate districts, 285
 Internal organization, of schools, 301
 International exchange of teachers and students, 65
 International organizations, educational, 67; teacher, 262
 International relations, 64
 International understanding, 57, 83; materials for teaching, 62; needed research in, 68; thru cultural exchange, 65
 Internship, 291
 Interview technics, 388
 Junior colleges, 302, 359; supervision in, 335
 Labor unions, 12, 39, 47; and educational policy, 23
 Lateral dominance, and reading, 112
 Legal status, of teachers, 254
 Library services, 304
 Literature, 125; in college, 125; curriculum, 125; effectiveness of teaching, 128; interests, 126; teaching methods, 126
 Maladjustment, 400
 Measurement, of teaching load, 237; of teaching success, 185, 214
 Mental health, 371; anxiety and, 379; and classroom methods, 406; in community life, 395; community planning for, 400; of college students, 409; diagnosis, 372; in different cultures, 397; effects of the war on, 398; improvement of, 386; in industry 413; and politics, 395; and school administration, 409; in schools, 405; and social status, 396; of teachers, 407

- Mental hygiene, 371; and the curriculum, 405; experiments in, 379; of teachers, 270
- Methods of instruction, and mental health, 406
- Minimum-salary schedules, 241
- Minority groups, 35
- Monopoly, in business, 46
- Morale, of teachers, 265
- Needed research, in education for international understanding, 68
- Need, for teachers, 179, 182
- Neurotic behavior, 380
- Objectives of education, 78
- Occupations, social status of, 397
- Opinion polls, 322
- Organization, of higher education, 343, 355; internal, 301; of junior colleges, 302; of school districts, 283; of state school systems, 341; trends, 301
- Organizations, educational, 260; international, 262; membership in, 260; state and local, 261
- Pensions, 240 (see also retirement plans)
- Perception, 382; of self, 383; visual, 109
- Personality, 371; and art, 160; of teachers, 185, 212, 268, 407; traits desirable in teachers, 211
- Ph.D. degree, proposed changes in, 231
- Philosophy of history, 14
- Physical health, 371
- Placement services for teachers, 214
- Polls, opinion, 322
- Population trends, 11
- Prediction, of teaching success, 185, 211, 214
- Preservice education of teachers, 201
- Price controls, 45
- Principals, duties of, 293; qualifications, 291; status of, 306; supervisory duties, 336; tenure, 293
- Professional standards, 181
- Projective technics, 160, 388
- Promotion policies, 213, 256
- Psychosomatic medicine, 372; training in, 375
- Psychotherapy, 386, 390
- Public opinion polls, 22, 59
- Public relations, 311
- Punctuation, 140
- Pupil personnel services, 85, 304
- Pupil progress, 304
- Questionnaire technics, 387
- Qualifications, for teaching, 210
- Race relations, 6, 35
- Racial attitudes, 129
- Radio, 9
- Readability, 113
- Reading, 95; in armed forces, 97; in college, 96, 110; of deaf children, 98; disabilities, 95, 98, 107; eye movements, 97, 109, 110; in high school, 96, 110; and intelligence, 98; interests, 102, 126, 130; and lateral dominance, 112; and personal adjustment, 406; readiness for, 98; remedial instruction in, 96; reversals, 113; special technics in, 96; status of achievement in, 97; tachistoscopic methods, 97, 109; tests, 101; textbooks, 99; variability, 97; visual factors, 107
- Reading disability, 95, 98, 107; and emotional adjustment, 406
- Recruitment, of teachers, 191
- Religion, and social class, 37
- Remedial reading instruction, 96
- Reorganization of school districts, 283, 325; factors influencing, 284; financial aspects, 286; procedures, 287; status of, 288; trends in, 285
- Retirement plans, 240, 256; attitudes toward, 245; status of, 244; statutory provisions, 243
- Reversals in reading, 113
- Rural schools, 284
- Safety education, 422; in industry, 413
- Salaries, principles for determining, 242; schedules, 241, 256; of superintendents, 294; of teachers, 181, 240, 293; trends, 240
- Schedules, of course offerings, 303
- Schoolboards, 298; duties, 299; handbooks, 299; personnel, 298
- School-community relations, 311
- School districts, organization of, 283; reorganization, 283, 325
- School services, extension of, 302, 314; special, 303
- Science, and democracy, 7, 8, 13
- Selection, needed research in, 215; of candidates for teacher education, 193, 197; of teachers, 210
- Self-esteem, 383
- Shortage of teachers, 179; causes of, 180
- Single salary schedules, 241
- Social adjustment, 129
- Social anxiety, 26
- Social attitudes, of teachers, 186

- Social psychology, 22
- Social status, 39; of teachers, 267; and vocabulary, 101
- Socialism, 6
- Socio-economic status, and intelligence, 397; and mental health, 396
- Sociometry, 390, 407, 409
- Special education, 305, 419
- Special services, 303
- Speech, of children, 155; methods of presentation, 154; tests, 153
- Speech education, 152; effects of training, 152; extracurricular, 153
- Spelling, 118; methods of teaching, 119, 120; relation to language ability, 121; status of achievement in, 119; tests, 120; word lists, 118; word selection, 118
- State boards of education, 342
- State departments of education, 343
- State school systems, organization and administration, 341
- Student teaching, 202
- Success in teaching, measurement of, 185, 214
- Superintendents, county, 295; duties of, 292; qualifications, 291; salaries, 294; tenure, 293
- Supervision, evaluation of, 337; in junior colleges, 335; organization and administration, 334; by principals, 336; principles of, 334; trends in, 339
- Supply, of teachers, 179
- Surveys, 322; evaluation of, 322; of higher education, 355; local, 324; regional, 328; state, 325; of supervisory practices, 334
- Tachistoscope, and reading instruction, 97, 109
- Teacher-pupil relationships, 185, 407
- Teachers, adjustment of, 185, 195, 268; certification of, 250; community relations, 267; guidance of, 191, 196; health status of, 267; in college, 198, 230; in-service education, 219; legal status of, 254; morale of, 265; organizations for, 260; pensions, 240; personality of, 407; placement of, 210; preservice training of, 201; professional standards, 181; promotion policies, 213, 256; reasons for becoming, 192; recruitment of, 191; relations with administration, 210, 214; retirement plans for, 240; salaries, 181, 240, 256; selection of, 193, 210, 214; shortage of, 179; social status of, 267; supply and demand, 179; unions, 10, 260, 262; welfare of, 265; working conditions, 181
- Teacher tenure, 254, 285
- Teacher training, 201; curriculum, 203; English, 147; laboratory experiences in, 202; professional requirements, 204; speech, 153
- Teaching load, 235, 303; effect of teacher shortages on, 238; measurement of, 237, 303; pay based on, 236; present status, 236
- Tenure, laws, 254; of school administrators, 293; of teachers, 285
- Terminal education, 303
- Tests, art, 166; English, 145; reading, 101, speech, 153; spelling, 120
- Transportation, accident liability, 320; financial aspects, 318; growth of, 318; legal status, 318; of pupils, 318
- Travel, in teacher education, 223
- Typography, and readability, 114
- Unesco, 61, 67, 84
- Unions, teachers, 260, 262
- U. S. President's Commission on Higher Education, 10, 33, 78, 83
- U. S. President's Committee on Civil Rights, 9, 32
- Values, 398
- Veteran's education, 349, 358
- Visual acuity, 208
- Visual aids, 145
- Visual defects, 420
- Visual factors in reading, 107
- Visual perception, 109
- Vocabulary, in children's writing, 118, 148; growth of, 100; of reading textbooks, 99, 100; and social status, 101
- Word lists, 118
- Word selection, in spelling, 118
- Work experience, 302
- Workshops, 338; in teacher education, 219, 225
- World Organization of the Teaching Profession, 67